OvaScience, Inc.
Form 10-Q
May 05, 2016
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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, 2016

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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting

company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x	Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting 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 May 2, 2016, there were 27,328,779 shares of the registrant's Common Stock, par value $0.001 per share, outstanding.

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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, 2016	As of December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$20,478	$ 43,224
Short-term investments	89,610	83,438
Prepaid expenses and other current assets	2,542	3,002
Restricted cash	109	197
Total current assets	112,739	129,861
Property and equipment, net	8,667	8,313
Investment in joint venture	215	—
Restricted cash	439	439
Total assets	$122,060	$ 138,613
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$4,218	$ 3,352
Accrued expenses and other current liabilities	7,589	7,891
Total current liabilities	11,807	11,243
Deferred rent and other non-current liabilities	1,409	520
Total liabilities	13,216	11,763
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; 27,307,759 and 27,296,747 shares issued and outstanding at March 31, 2016 and December 31, 2015, respectively	27	27
Additional paid-in capital	298,499	294,910
Accumulated other comprehensive loss	(7)	(170)
Accumulated deficit	(189,675)	(167,917)
Total stockholders' equity	108,844	126,850
Total liabilities and stockholders' equity	$122,060	$ 138,613

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,	
	2016	2015
Revenues	$146	$15
Costs and expenses:		
Costs of revenues	1,176	35
Research and development	5,955	5,747
Selling, general and administrative	14,454	11,046
Total costs and expenses	21,585	16,828
Loss from operations	(21,439)	(16,813)
Interest income, net	174	44
Other (expense) income, net	(27)	34
Loss from equity method investment	(391)	(471)
Loss before income taxes	(21,683)	(17,206)
Income tax expense	75	—
Net loss	$(21,758)	$(17,206)
Net loss per share—basic and diluted	$(0.80)	$(0.65)
Weighted average number of shares used in net loss per share—basic and diluted	27,301	26,588
Net loss	$(21,758)	$(17,206)
Other comprehensive loss:		
Unrealized gains on available-for-sale securities	163	25
Comprehensive loss	$(21,595)	$(17,181)

See accompanying notes.

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

	Three Months Ended March 31,	
	2016	2015
Cash flows from operating activities:		
Net loss	$(21,758)	$(17,206)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	504	227
Amortization of premium on debt securities	295	171
Stock-based compensation expense	3,551	6,367
Issuance of common stock for director fees	38	—
Net loss on equity method investment	391	471
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	470	(239)
Accounts payable	378	(657)
Accrued expenses, deferred rent and other non-current liabilities	721	(3,528)
Net cash used in operating activities	(15,410)	(14,394)
Cash flows from investing activities:		
Investment in joint venture	(750)	(750)
Purchases of property, plant and equipment	(370)	(389)
Maturities of short-term investments	20,814	19,030
Purchases of short-term investments	(27,118)	—
Decrease in restricted cash	88	—
Net cash (used in) provided by investing activities	(7,336)	17,891
Cash flows from financing activities:		
Net proceeds from the issuance of common stock	—	124,063
Issuances of common stock under benefit plans, net of withholding taxes paid	—	724
Net cash provided by financing activities	—	124,787
Net (decrease) increase in cash and cash equivalents	(22,746)	128,284
Cash and cash equivalents at beginning of period	43,224	6,414
Cash and cash equivalents at end of period	$20,478	$134,698

See accompanying notes.

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

1. Organization and basis of presentation

OvaScience, Inc., incorporated on April 5, 2011 as a Delaware corporation, is a global fertility company developing proprietary potential treatments for female infertility based on scientific discoveries about the existence of egg precursor, or EggPC℠, cells. As used in these condensed 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 AUGMENT℠ treatment, launching the AUGMENT treatment in select international in vitro fertilization (IVF) clinics, researching and developing the OvaPrime℠ treatment and the OvaTure℠ treatment, and determining the regulatory and development path for our fertility treatments. We have commenced our planned principal operations but have only generated limited revenues to date.

We are subject to a number of risks similar to other life science companies, including, but not limited to, the need to obtain adequate additional funding, possible failure to provide our treatments to IVF clinics to gain clinical experience in select countries outside of the United States, the need to 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. If we do not successfully commercialize any of our fertility treatments, we will be unable to generate treatment revenue or achieve profitability. As of March 31, 2016 we had an accumulated deficit of approximately $189.7 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. We have launched one fertility treatment, the AUGMENT treatment, in select international IVF clinics and have two potential treatments in development. We have devoted substantially all of our financial resources and efforts to the launch of the AUGMENT treatment, raising capital, and research and development of our fertility treatments. We expect to continue to incur significant expenses and operating losses for at least the next several years. We expect that our existing cash, cash equivalents and short-term investments of $110.1 million at March 31, 2016 will enable us to fund our current operating plan for at least the next 12 months.

2. Basis of presentation and significant accounting policies

Unaudited interim financial data

The accompanying unaudited condensed consolidated balance sheet as of March 31, 2016, the statements of operations and comprehensive loss for the three months ended March 31, 2016 and 2015, and the statements of cash flows for the three months ended March 31, 2016 and 2015, and the related interim information contained within the notes to the financial statements, have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all of the information and the notes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, the unaudited interim financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of our financial position at March 31, 2016, results of our operations for the three months ended March 31, 2016 and 2015 and our cash flows for the three months ended

March 31, 2016 and 2015. The results for the three months ended March 31, 2016 are not necessarily indicative of future results.

Principles of consolidation

These condensed consolidated financial statements include the accounts of OvaScience and the accounts of our wholly-owned subsidiaries. All intercompany transactions have been eliminated in consolidation.

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Use of estimates

These condensed consolidated financial statements are presented in conformity with U.S. generally accepted accounting principles, which require 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 such estimates.

Net loss per share

Basic and diluted net loss per common share is calculated by dividing net loss by the weighted average number of shares outstanding during the relevant 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, prior to the use of the treasury stock method, due to their anti-dilutive effect (in thousands):

	As of March 31,	
	2016	2015
Outstanding stock options and restricted stock units	5,653	3,943
Unvested Founders' stock	—	165
Total	5,653	4,108

Summary of significant accounting policies

Our other significant accounting policies are described in Note 2, "Summary of Significant Accounting Policies," in our Annual Report on Form 10-K for the year ended December 31, 2015.

New accounting pronouncements

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standard Update (ASU) No. 2016-09, Compensation - Stock Based Compensation, which simplifies several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. The new standard also provides the option to either continue to estimate the number of awards that are expected to vest or to account for forfeitures as they occur. The amendment is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods, early adoption is permitted. We are evaluating this standard to determine if adoption will have a 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 the new standard, 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 that adopting this new accounting standard will have on its consolidated financial statements and footnote disclosures thereto.

In August 2015, the FASB issued ASU No. 2015-14, which defers the effective date of ASU No. 2014-09 by one year. ASU No. 2014-09 amends the guidance for accounting for revenue from contracts with customers. This ASU supersedes the revenue recognition requirements in Accounting Standards Codification 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 recognized at the date of initial application. We have not yet determined which adoption method we will utilize or the effect that the adoption of this guidance will have on our consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements-Going Concern. The new standard requires management of public and private companies to evaluate whether there is substantial doubt about the entity's ability to continue as a going concern and, if so, disclose that fact. We will also be required to evaluate and disclose whether our plans

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alleviate that doubt. This guidance is effective for annual periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. We have evaluated the impact of this new standard as if it were adopted in connection with the issuance of our current quarterly financial statements and have determined that there is no additional disclosure required.

3. OvaXon Joint Venture

In December 2013, we entered into a joint venture with Intrexon Corporation ("Intrexon") to leverage Intrexon's synthetic biology technology platform and OvaScience's 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 initially contributed $1.5 million of cash to OvaXon, each 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. During 2015, each party contributed an additional $1.5 million.

We consider OvaXon a variable interest entity. OvaXon does not have a primary beneficiary as both we and Intrexon have equal ability to direct the activities of OvaXon through membership in a Joint Steering Committee and an Intellectual Property Committee and 50% voting rights. OvaXon has been accounted for under the equity method and is not consolidated. This analysis and conclusion will be updated annually or as changes occur to reflect any changes in ownership or control over OvaXon.

We have recorded losses from equity method investments related to OvaXon of $0.4 million for the three months ended March 31, 2016. We have recorded losses from equity method investments related to OvaXon of $0.5 million for the three months ended March 31, 2015. Each party contributed an additional $0.8 million during the three months ended March 31, 2016 and March 31, 2015. Our maximum exposure to loss with respect to our joint venture is limited to the carrying amount of the investment.

4. Fair value

The fair value of our financial assets and liabilities reflects our estimate of amounts that we would have received in connection with the sale of such assets or paid in connection with the transfer of such liabilities in an orderly transaction between market participants at the measurement date. In connection with measuring the fair value of our assets and liabilities, 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 and liabilities based on the observable inputs and unobservable inputs we used to value our assets and liabilities:

- Level 1—quoted prices (unadjusted) in active markets for identical assets or liabilities.

- Level 2—quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, 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 and liabilities at fair value.

For fixed income securities, we reference pricing data supplied by our custodial agent and nationally known pricing vendors, using a variety of daily data sources, largely readily-available market data and broker quotes. The prices provided by third-party pricing services are validated by reviewing their pricing methods and obtaining market values from other pricing sources. After completing these validation procedures, we did not adjust or override any fair value

measurements provided by the pricing services as of March 31, 2016 or December 31, 2015.

We review investments for other-than-temporary impairment whenever the fair value of an investment is less than the amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, we consider the intent to sell, or whether it is more likely than not that we will be required to sell the investment before recovery of the investment's amortized cost basis. Evidence considered in this assessment includes reasons for the impairment, compliance with our investment policy, the severity and the duration of the impairment and changes in value subsequent to period end. As of March 31, 2016 and December 31, 2015, there were no investments with a fair value that was significantly lower than the amortized cost basis or any investments that had been in an unrealized loss position for a significant period.

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The following tables provide our assets and liabilities that are measured at fair value on a recurring basis as of March 31, 2016 and December 31, 2015 (in thousands):

Description	Balance as of March 31, 2016	Level 1	Level 2	Level 3
Assets:				
Cash and money market funds	$20,478	$20,478	$—	$ —
Corporate debt securities (including commercial paper)	89,610	—	89,610	—
Total assets	$110,088	$20,478	$89,610	$ —

Description	Balance as of December 31, 2015	Level 1	Level 2	Level 3
Assets:				
Cash and money market funds	$ 43,224	$43,224	$—	$ —
Corporate debt securities (including commercial paper)	83,438	—	83,438	—
Total assets	$ 126,662	$43,224	$83,438	$ —

Cash and cash equivalents, prepaid expenses, accounts payable and accrued expenses are carried at amounts that approximate fair value due to their short-term maturities.

5. Cash, cash equivalents and short-term investments

The following tables summarize our cash, cash equivalents and short-term investments at March 31, 2016 and December 31, 2015 (in thousands):

March 31, 2016	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 20,478	$ —	$ —	$20,478
Corporate debt securities	0	0	0	0
Due in one year or less	76,296	26	(33)	76,289
Due in two years or less	13,321	4	(4)	13,321
Total	$ 110,095	$ 30	$ (37)	$110,088
Reported as:				
Cash and cash equivalents	$ 20,478	$ —	$ —	$20,478
Short-term investments	89,617	30	(37)	89,610
Total	$ 110,095	$ 30	$ (37)	$110,088

December 31, 2015	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 43,224	$ —	$ —	$43,224
Corporate debt securities	0	0	0	0
Due in one year or less	68,898	—	(107)	68,791
Due in two years or less	14,710	—	(63)	14,647
Total	$ 126,832	$ —	$ (170)	$126,662
Reported as:				
Cash and cash equivalents	$ 43,224	$ —	$ —	$43,224
Short-term investments	83,608	—	(170)	83,438
Total	$ 126,832	$ —	$ (170)	$126,662

At March 31, 2016 and December 31, 2015 we held eighteen and forty-three debt securities that had been in an unrealized loss position for less than 12 months, respectively. We held no investments that had been in a continuous unrealized

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loss position for 12 months or longer. At March 31, 2016 and December 31, 2015 the aggregate fair value of these securities was $36.1 million and $81.4 million, respectively. We evaluated our securities for other-than-temporary impairments based on quantitative and qualitative factors, and we considered the decline in market value for the eighteen debt securities as of March 31, 2016 to be primarily attributable to the then current economic and market conditions. We will likely not be required to sell these securities, and we 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, 2016.

As of March 31, 2016, we held $8.5 million in financial institution debt securities and other corporate debt securities located in Canada, the United Kingdom and Australia. As of December 31, 2015, we held $11.7 million in financial institution debt securities and other corporate debt securities located in Canada, the United Kingdom and Australia. Based on our analysis, we do not consider these investments to be other-than-temporarily impaired as of March 31, 2016.

We had no realized gains or losses or other-than-temporary impairments on our short-term investments for the three months ended March 31, 2016. We had no realized gains or losses or other-than-temporary impairments on our short-term investments for the three months ended March 31, 2015.

6. Property and equipment

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

	As of March 31, 2016	As of December 31, 2015
Laboratory equipment	$7,853	$ 7,270
Furniture	716	712
Computer equipment	245	230
Leasehold improvements	2,777	2,521
Total property and equipment, gross	11,591	10,733
Less: accumulated depreciation	(2,924)	(2,420)
Total property and equipment, net	$8,667	$ 8,313

We recorded depreciation and amortization expense of $0.5 million and $0.2 million for the three months ended March 31, 2016 and 2015, respectively.

7. Common stock

In January 2015, we issued and sold in an underwritten public offering an aggregate of 2,645,000 shares of our common stock at $50 per share, which included 345,000 shares that represented the full exercise of an option to purchase additional shares granted to the underwriters in connection with the offering. The shares included in this offering were registered under the Securities Act of 1933, as amended, or the Securities Act, pursuant to a registration statement on Form S-3 (File No. 333-200040) that the SEC declared effective on November 21, 2014. The offering resulted in $124.1 million of net proceeds, after deducting underwriting discounts and commissions and other offering expenses payable by us.

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8. Stock-based compensation

Stock options

A summary of our stock option activity and related information 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, 2015	4,650,114	$ 21.49	8.58	$ 2,970
Granted	1,040,650	7.55		
Exercised	(4,476)	0.04		
Forfeited / Cancelled	(365,363)	33.86		
Outstanding at March 31, 2016	5,320,925	17.94	8.59	4,513
Exercisable at March 31, 2016	1,838,778	16.58	7.77	1,899
Vested and expected to vest at March 31, 2016	4,520,738	17.84	8.52	3,906

The total intrinsic value (the amount by which the fair market value exceeded the exercise price) of stock options exercised was immaterial for the three months ended March 31, 2016 and $4.9 million for the three months ended March 31, 2015.

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

	Three months ended March 31,	
	2016	2015
Risk-free interest rate	1.4%-2.0%	1.6%-1.9%
Dividend yield	—	—
Volatility	78%-82%	75%
Expected term (years)	6.1-9.9	6.0-9.9

As of March 31, 2016, we had approximately $30.5 million of total unrecognized compensation cost, net of estimated forfeitures, related to unvested stock options, which we expect to recognize over a weighted-average period of 2.8 years.

During the three months ended March 31, 2016, a senior executive resigned from employment with us. In connection with the separation, all unvested stock options were forfeited. As a result of the forfeiture, we reversed $0.8 million, net, of stock-based compensation expense during the three months ended March 31, 2016.

During the three months ended March 31, 2016, we granted options to purchase 1,040,650 shares of our common stock at weighted average grant date fair values of $5.27 per share and with weighted average exercise prices of $7.55 per share. During the three months ended March 31, 2015, we granted options to purchase 419,500 shares of our common stock at weighted average grant date fair values of $25.03 per share and with weighted average exercise prices of $42.10 per share.

Restricted stock units

We granted restricted stock units ("RSUs") to Michelle Dipp, M.D., Ph.D., our Chief Executive Officer in December 2014. The RSUs issued included a service-based award that vests evenly over eight quarters and a performance-based award that vests in two one-year tranches upon the achievement of certain performance conditions for the respective year, as determined by our board of directors. The grant date fair value of the service-based awards is based on the closing price of our common stock on the award date and the stock-based compensation expense for these service-based awards are recognized on a straight-line basis over the vesting period. The grant date fair value of the performance-based awards is based on the closing price of our common stock on the date that the performance criteria is established for each tranche and communicated to our Chief Executive Officer Dr. Dipp and the stock-based compensation for these performance-based awards is recognized over the requisite service period.

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On March 29, 2015 our board of directors established the 2015 performance criteria for the first tranche of the performance-based award and communicated the performance criteria to our Chief Executive Officer. The grant date stock price of these performance-based RSUs was $43.47 per share. In December 2015 our board of directors determined that certain of the performance criteria had been met resulting in the partial vesting of the first tranche award. In January 2016, as part of Dr. Dipp's appointment as our Executive Chair all then outstanding RSUs previously issued to her were canceled, including the second tranche of the performance-based award and the remaining service based RSUs.

On January 5, 2016, we issued 250,000 RSUs to Dr. Harald Stock upon his appointment as Chief Executive Officer - Elect. The RSUs will vest over four years with 25% vesting on January 5, 2017 and the remaining RSUs vesting ratably over the next 12 quarters. The grant date fair value of the service-based award is based on the closing price of our common stock on the award date and the stock-based compensation expense for these service-based awards are recognized on a straight-line basis over the vesting period.

As of March 31, 2016, we had approximately $2.2 million of total unrecognized compensation cost related to non-vested service-based RSUs granted under the 2012 Plan. The expense is expected to be recognized over a weighted-average period of 3.65 years.

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, 2015 and elsewhere in this Quarterly Report on Form 10-Q. You should carefully review those factors and also carefully review the risks outlined in other documents that we file from time to time with the Securities and Exchange Commission, or SEC.

Overview

OvaScience is a global fertility company focused on the discovery, development, and commercialization of new fertility treatment options for women. The current standard of treatment for infertility is in vitro fertilization, or IVF. IVF, however, fails approximately 70% of the time. The discovery of egg precursor, or EggPC^{SM}, cells countered a long-held medical belief that women are born with a set number of eggs, thereby enabling our new fertility treatment options. Our patented technology is based on EggPC cells, which are immature egg cells found in the protective outer lining of a woman’s ovaries. These EggPC cells are immature egg cells found in the protective outer lining of a woman's own ovaries. We believe that these immature egg cells have the ability to grow into young, fertilizable eggs.

Our portfolio of fertility treatment options uses our patented technology including proprietary methods to identify and isolate EggPC cells from a patient's own ovarian tissue. By applying our EggPC technology platform in unique ways, we have commercialized one fertility treatment and are developing new fertility treatment options that are designed to

improve egg health and revolutionize IVF.

More women around the world are waiting until later in life to start families and are in need of new fertility treatment options. Fertility decreases with age. The main cause of age related infertility is poor egg health, which is linked to a reduction in the number of functioning mitochondira. Other causes of poor egg health relating to mitochondria deficiency includes Type 2 diabetes. Accordingly, women throughout the world are increasingly seeking new treatment options for infertility.

Our first commercial treatment, the AUGMENT℠ treatment, is specifically designed to improve egg health by supplementing a mitochondrial deficiency which may, in turn, offer the potential for enhanced IVF success rates. With the AUGMENT treatment, energy-producing mitochondria from a woman's own EggPC cells are added to the woman's mature eggs during the IVF process to supplement the existing mitochondria. The AUGMENT treatment has been introduced in our

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partner IVF clinics outside of the United States, which we refer to as our partner clinics, and we plan to expand the network of clinics and clinicians offering the AUGMENT treatment, focusing our efforts initially in Canada and Japan. In 2016, we have entered into two agreements with new partner clinics, who will be offering the AUGMENT treatment in Canada following completion of a non-commercial preceptorship training program. We plan to stop providing the AUGMENT treatment in Turkey after completing our work on ongoing treatment cycles for current patients due to regional instability. We do not expect the cessation of treatment in Turkey to have a material impact on our operating results. We have introduced the AUGMENT treatment in clinics in different countries through non-commercial preceptorship training programs that transition to commercial operations and in studies conducted by partner clinics. In some cases, we and our partner clinics have had discussions with local regulatory bodies, such as the Ministry of Health and La Comisión Nacional de Reproducción Humana Asistida, or CNRHA in Spain, and the Ministry of Health and Japan Society of Obstetrics and Gynecology (JSOG), prior to introducing the AUGMENT treatment. In connection with AUGMENT's recent approval by JSOG in Japan, we plan to build the infrastructure to support a non-commercial preceptorship training program as well as our future commercial introduction in Japan. Japan is one of the largest IVF markets in the world. We are also working with the IVI Group, the largest IVF clinic network in the world, to obtain prospective patient experience data in a study in Valencia, Spain and we plan to work with other partner clinics on additional studies. In the first quarter, the IVI Group continued enrollment of patients in its controlled, double-blind, prospective and randomized egg allocation study of the AUGMENT treatment. This adaptive study compares standard IVF to the AUGMENT treatment. The AUGMENT treatment is not available in the United States.

The OvaPrime℠ treatment is a potential fertility treatment that could enable a woman to increase her egg reserve. Approximately 25% of women who start an IVF cycle fail to produce a sufficient number of eggs (or the eggs are too immature). The OvaPrime treatment is designed to replenish a woman’s egg reserve by transferring a patient’s EggPC cells from the protective ovarian lining back into the patient’s own ovaries where they may mature into fertilizable eggs during the IVF process. We reported large animal proof-of-concept studies in 2014. In December 2015, we commenced a clinical study with the OvaPrime treatment in an international region outside the United States to gain insight into the clinical efficacy and feasibility of the treatment. We will update you on our progress and path forward for the OvaPrime program by the end of 2016.

The OvaTure℠ treatment is a potential next-generation fertility treatment that could help a woman produce healthy, young, fertilizable eggs without the need for hormone injections. The OvaTure treatment seeks to mature a woman’s own EggPC cells into eggs outside her body. This potential treatment may be an option for women with compromised eggs, who are unable to make eggs, or who may be unwilling or unable to undergo hormone hyperstimulation. We established human preclinical proof-of-concept and continue to optimize the maturation process by demonstrating that human EggPC cells can be matured into eggs outside of the body. In 2016, we will continue development of the OvaTure procedure, with a goal of further understanding and defining the clinical path forward. The aim is to characterize EggPC-derived mature eggs. We are seeking permission from regulatory authorities outside the United States for certain steps necessary to complete testing of EggPC derived eggs.

We believe our EggPC technology has the potential to make significant advances in the field of fertility because it is designed to address poor egg health and embryo quality due to age and other causes. We believe our EggPC technology could improve IVF by:

Increasing live birth rates and reducing the number of IVF cycles. By improving egg health, we believe we may increase the percentage of live births and reduce the number of IVF cycles required.

Reducing the incidence of multiple births. By generating higher quality eggs, we believe our EggPC technology may allow for the transfer of fewer embryos per IVF cycle and, as a result, lower the incidence of multiple births and the associated complications.

Lowering the overall cost of the IVF process. If we reduce the number of IVF cycles required for a live birth and the incidence of multiple births, we believe our fertility treatment options may also lower the overall costs associated with the IVF process.

Replenishing the ovary for women who make too few or no eggs. Our OvaPrime treatment is designed to replenish a woman's egg reserve by transferring a patient's EggPC cells from the protective ovarian lining back into the patient's own ovaries where they may mature into fertilizable eggs.

Reducing the need for hormonal hyperstimulation. We are designing our OvaTure treatment to mature EggPC cells into fertilizable eggs in vitro, or outside the body. If successful, the OvaTure treatment could reduce, or possibly eliminate, the need for hormonal hyperstimulation for the maturation of multiple oocytes prior to egg retrieval in the IVF process.

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Developing new treatments for diseases. OvaXon[SM] is a joint venture with Intrexon Corporation, or Intrexon, which is focused on developing significant improvements in human and animal health using our EggPC cell technology and Intrexon's synthetic biology and high throughput platform for applications.

The AUGMENT Treatment

We have introduced the AUGMENT treatment in select international IVF clinics and we anticipate that we will introduce the AUGMENT treatment into new international regions. The AUGMENT treatment is not available in the United States.

An AUGMENT treatment cycle begins upon our receipt of the patient's ovarian tissue after biopsy, which is obtained through a biopsy performed by the patient's doctor prior to hormone stimulation. Our proprietary process identifies and isolates the patient's own EggPC cells, and then the patient's own mitochondria from these EggPC cells are isolated. The patient's own mitochondria are then injected into her egg at the time of intracytoplasmic sperm injection, or ICSI. We expect to receive payment before processing tissue and defer revenue until we deliver the mitochondria to the clinic, which is timed with the patient's standard IVF cycle and can stretch from 30 to 120 days or more. Within certain of our programs, revenue recognition may be further deferred. In the future, however, as we change our operational model and introduce efficiencies, we anticipate that we will be able to recognize revenue on a shorter time frame.

We have established our international headquarters in the United Kingdom to coordinate our international commercial efforts. We plan to focus our initial efforts on the regions of Canada and Japan. Within these regions we will target customers that combine elements of the following key criteria:

- Key opinion leaders
- High volume IVF clinics
- High quality IVF labs
- Out-of-pocket pay and high average cost per cycle
- Potential for reimbursement by healthcare providers
- Donor egg restrictions

In addition, we are working with the IVI Group in Valencia, Spain to obtain prospective patient experience data in a study and plan to work with other partner clinics on additional studies.

We continue to explore the optimal business model for the AUGMENT treatment based on our initial commercial experience. We plan to:

- pursue broader use, including first line treatment for various egg health and male factor indications;
- pursue reimbursement for the AUGMENT treatment in regions where traditional IVF is covered, while continuing to focus on out-of-pocket pay opportunities;
- review the optimal manufacturing model(s) in certain regions, while continuing to utilize onsite manufacturing, to handle demand resulting from expanded indications, ongoing publication of patient experience and broad geographic expansion; and
- continue to optimize commercial operations and logistics.

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, 2015 for a discussion of our critical accounting policies and estimates.

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There were no significant changes to our critical accounting policies and estimates in the three months ended March 31, 2016.

We have irrevocably elected not to follow the extended transition period available to emerging growth companies provided for in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards.

Results of Operations

The following table summarizes our results of operations for the three months ended March 31, 2016 and 2015, together with the change in these items in thousands of dollars and as a percentage:

	Three Months Ended, March 31,		2016 / 2015 Comparison Increase / (Decrease)	
	2016	2015	$	%
Revenues	$ 146	$ 15	$ 131	873 %
Costs of revenues	1,176	35	1,141	NM [1]
Research and development expenses	5,955	5,747	208	4 %
General and administrative expenses	14,454	11,046	3,408	31 %
Interest income, net	174	44	130	295 %
Other (expense) income, net	(27)	34	(61)	(179)%
Loss from equity method investment	391	471	(80)	(17)%
Income tax expense	75	—	75	N/A
Net Loss	$ 21,758	$ 17,206	$ 4,552	26 %

(1) - Not Meaningful

Revenues

Revenues for the three months ended March 31, 2016 and 2015 were $146,000 and $15,000, respectively. For the three months ended March 31, 2016, we completed 24 AUGMENT treatments and received the biopsy for an additional 21
patients. An AUGMENT treatment cycle begins upon our receipt of the patient's ovarian tissue after biopsy. We expect to receive payment before processing tissue and defer treatment revenues until we deliver the mitochondria to the clinic. Based on our experiences to date, the period from receipt of the patient's tissue to recording revenue is expected to range between 30 and 120 days or more, the typical timeframe required to perform an IVF cycle. Within certain of our programs, revenue recognition may be further deferred. We had limited revenue and deferred revenue in 2015. During the second half of 2015, we offered various pilot pricing programs, which we will continue in 2016. These programs are designed to broaden the customer base knowledge and hands on experience with AUGMENT treatment. We anticipate revenues will grow modestly in the near term as we continue to expand our sales force and execute on our sales strategy. Our ability to generate additional revenue in the near term will depend on continued enrollment and use of the AUGMENT treatment in our partner clinics in new and existing regions.

Cost of Revenues

Costs of revenues for the three months ended March 31, 2016 increased to $1.2 million compared to $35,000 for the three months ended March 31, 2015. The increase in costs of revenues is driven by the expansion of our commercial operations, which includes additional personnel and equipment. To make the AUGMENT treatment available in a

specific international region, we need to establish laboratories and hire scientific personnel to process the patient tissue. Therefore, as we continue to process additional AUGMENT treatments in commercial partner clinics we expect the cost of processing an AUGMENT treatment to decline as these fixed costs will be allocated over a larger number of treatments. Our costs of revenues include the cost of processing patient tissue that corresponds to treatment revenues for the reporting period.

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Research and Development Expense

The $0.2 million, or 4%, increase in our research and development expense for the three months ended March 31, 2016 as compared to the three months ended March 31, 2015 was primarily attributable to:

- a $1.1 million increase in employee compensation and related benefits driven by the hiring of additional research and development personnel;
- a $0.6 million increase in lab supplies and patient related costs associated with our ongoing clinical study being performed at IVI Valencia;
- a $0.5 million increase in facilities, consulting and other costs; and
- a $2.0 million decrease in stock-based compensation expense related to certain mark-to-market adjustments of Founders' stock, which was fully expensed and vested in the first quarter of 2015 that did not recur in 2016;

We expect research and development expense to increase if our programs 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 programs;
- the anticipated completion dates of our programs; or
- the period in which material net cash inflows are expected to commence, if at all, from our current programs and any potential future treatments.

Selling, General and Administrative Expense

Selling, general and administrative costs consist of ongoing costs to run our operations and continue to support the expanding international availability of the AUGMENT treatment. The $3.4 million, or 31%, increase in selling, general and administrative expense for the three months ended March 31, 2016 as compared to the three months ended March 31, 2015 was primarily due to:

- a $2.2 million increase in employee compensation and related benefits driven by the hiring of additional selling, general and administrative personnel, including $0.6 million of severance related costs; and
- a $1.6 million increase to support our international growth and intellectual property including increases of $0.9 million in legal expenses and $0.7 million in accounting, tax and other related expenses;
- a $0.6 million increase in facilities and other costs; and
- a $1.0 million decrease in stock-based compensation expense related to certain mark-to-market adjustments of Founders' stock, which was fully expensed and vested in the first quarter of 2015 that did not recur in 2016.

We expect selling, general and administrative expenses to increase as we continue to expand our international sales and operations. We plan to continue to build in-market teams in the regions of Canada and Japan to provide the infrastructure necessary to support our commercial efforts for the AUGMENT treatment. We do not believe that our historical costs are indicative of the future costs associated with supporting the AUGMENT treatment nor do they represent what any other future commercial treatment program we initiate may cost to support.

Interest Income, Net

Interest income, net was $0.2 million for the three months ended March 31, 2016, which included $0.2 million of interest income related to short-term investments. For the three months ended March 31, 2015 there was immaterial interest income, net related to short-term investments.

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Loss from Equity Method Investment

Loss from equity method investment was $0.4 million and $0.5 million for the three months ended March 31, 2016 and March 31, 2015, respectively. These losses resulted from our OvaXon joint venture established in December 2013.

Income Tax Expense

Income tax expense was $0.1 million for the three months ended March 31, 2016. Income tax expense includes 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. 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, 2016 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, 2016	December 31, 2015
Cash, cash equivalents and short-term investments	$110,088	$ 126,662
Working capital	100,932	118,618

	Three Months Ended March 31,	
	2016	2015
Cash (used in) provided by:		
Operating activities	(15,410)	(14,394)
Investing activities	(7,336)	17,891
Capital expenditures (included in investing activities above)	(370)	(389)
Financing activities	—	124,787

Cash Flows

Cash used in operating activities in both of the periods presented was primarily driven by our net loss. Cash flows from 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. During the three months ended March 31, 2016, we received $1.2 million tenant allowance relating to leasehold improvements from our landlord that has been included within cash used in operating activities. We have accounted for the allowance received as a lease incentive to deferred rent and will be recorded as a reduction to rent expense over the lease term.

Cash used in investing activities for the three months ended March 31, 2016 included purchases of $27.1 million of short-term investments, capital expenditures of $0.4 million, and a $0.8 million investment in a joint venture, which were offset by $20.8 million of proceeds from maturities of short-term investments and a $0.1 million decrease in restricted cash. Capital expenditures in the three months ended March 31, 2016 primarily consisted of manufacturing equipment.

Cash used in investing activities for the three months ended March 31, 2015 included a $0.8 million investment in a joint venture and capital expenditures of $0.4 million, which were offset by proceeds from maturities of short-term investments of $19.0 million. Capital expenditures in the three months ended March 31, 2015 primarily consisted of laboratory equipment.

Net cash provided by financing activities for the three months ended March 31, 2016 was immaterial.

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Net cash provided by financing activities for the three months ended March 31, 2015 was primarily the result of an underwritten public offering of an aggregate of 2,645,000 shares of common stock at a price per share of $50.00 resulting in net proceeds of $124.1 million. Stock option exercises and issuances of common stock resulted in net proceeds of $0.7 million.

We may need substantial additional funds to support our planned operations and commercialization strategy. We expect that our existing cash, cash equivalents and short-term investments of $110.1 million at March 31, 2016 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 the 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:

- our success in expanding to new partner clinics in other major regions of the world, transitioning partner clinics to commercial centers and significantly increasing the number of patients receiving the AUGMENT treatment;
- our success in introducing the OvaPrime treatment to international IVF clinics;
- the costs associated with the expansion of foreign operations and building out our international commercial infrastructure, including expanding and staffing in our international headquarters in the United Kingdom and other international subsidiaries;
- the costs associated with establishing a domestic and international sales, marketing, manufacturing and distribution infrastructure to commercialize the AUGMENT treatment and any other fertility treatments that we successfully develop;
- the pricing of the AUGMENT treatment and resulting revenues, as well as any future revenues we receive from our potential fertility treatments;
- the costs associated with the non-commercial preceptorship training program for the OvaPrime treatment;
- the costs of continuing the optimization of the OvaTure treatment and our success in defining a clinical pathway;
- the costs of any clinical trials of potential fertility treatments;
- the costs involved in collaborating with Intrexon through the OvaXon joint venture to create new applications to prevent inherited diseases for human and animal health;
- 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;
- 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 the AUGMENT treatment or our other 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 capital. In addition, we may elect to raise additional capital even before we need it 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

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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, 2015.

Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standard Update (ASU) No. 2016-09, Compensation - Stock Based Compensation, which simplifies several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The new standard also provides the option to either continue to estimate the number of awards that are expected to vest or to account for forfeitures as they occur. The amendment is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods, early adoption is permitted. We are evaluating this standard to determine if adoption will have a 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 the new standard, 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. The Company is currently assessing the impact that adopting this new accounting standard will have on its consolidated financial statements and footnote disclosures.

In August 2015, the FASB issued ASU No. 2015-14, which defers the effective date of ASU No. 2014-09 by one year. ASU No. 2014-09 amends the guidance for accounting for revenue from contracts with customers. This ASU supersedes the revenue recognition requirements in Accounting Standards Codification 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 recognized at the date of initial application. We have not yet determined which adoption method we will utilize or the effect that the adoption of this guidance will have on our consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements-Going Concern. The new standard requires management of public and private companies to evaluate whether there is substantial doubt about the entity's ability to continue as a going concern and, if so, disclose that fact. We will also be required to evaluate and disclose whether our plans alleviate that doubt. This guidance is effective for annual periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. We have evaluated the impact of this new standard as if it were adopted in connection with the issuance of our current quarterly financial statements and have determined that there is no additional disclosure required.

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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.

A hypothetical 100 basis point increase in interest rates would result in an approximately $0.6 million decrease in the fair value of our investments as of March 31, 2016, as compared to an approximately $0.5 million decrease as of December 31, 2015. 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, 2016. 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, 2016, 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, 2016 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 (the "Superior Court") 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 purport to represent those persons who purchased shares of our common stock pursuant or traceable to our January 2015 follow-on public offering. The plaintiffs allege, among other things, that the defendants 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 (the "District Court"). 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 purported class action lawsuit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts, alleging substantially the same claims against the same parties as the action filed on October 9, 2015. On April 4, 2016, the Superior Court granted the parties’ joint motion to consolidate the two cases and appoint co-lead plaintiffs, and ordered the co-lead plaintiffs to file an amended consolidated complaint within sixty days. We believe that the consolidated action 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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We are not party to any other litigation in any court and management is not aware of any contemplated proceeding by any governmental authority against the Company.

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, Item 1A. “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2015, which could materially affect our business, financial condition, or results of operations. There have been no material changes in or additions to the risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2015.

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

On March 3, 2016, the Company issued option grants to Paul Chapman, its newly appointed Chief Operating Officer, and Rebecca Peterson, its Executive Vice President of Corporate Communications, as new hire inducement grants pursuant to NASDAQ Listing Rule 5635(c)(4) and Section 4(a)(2) of the Securities Act. Mr. Chapman’s option grant is for the purchase of an aggregate of 350,000 shares of Common Stock. Ms. Peterson’s option grant is for the purchase of an aggregate of 200,000 shares of Common Stock. Additionally, the Company granted options to purchase an aggregate of 23,000 shares of its common stock at a price per share of $6.96 to five newly hired employees. These grants were also made pursuant to NASDAQ Listing Rule 5635(c)(4) and Section 4(a)(2) of the Securities Act. All stock option awards are exercisable at $6.96 per share and vest as to 25% on the one year anniversary of each employee’s date of hire, with the remaining vesting quarterly thereafter, subject to each employee’s continued employment with the Company.

Item 6. Exhibits

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth in the Exhibit Index and such Exhibit Index is incorporated herein by reference.

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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/ Michelle Dipp, M.D., Ph.D.
Name: Michelle Dipp, M.D., Ph.D.
Date: May 5, 2016 Title: Chief Executive Officer and Executive Chairman (Principal Executive Officer)

By: /s/ Jeffrey Young
Name: Jeffrey Young
Date: May 5, 2016 Title: Chief Financial Officer (Principal Accounting and Financial Officer)

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Exhibit Index

Exhibit	Description
10.1*	Executive Agreement, dated January 5, 2016, between the Registrant and Michelle Dipp (incorporated by reference to Exhibit 10.29 of the Registrant's Annual Report on Form 10-K filed March 26, 2016 (File No. 001-35890)).
10.2*	Employment Agreement, dated January 5, 2016, between the Registrant and Harald Stock (incorporated by reference to Exhibit 10.30 of the Registrant's Annual Report on Form 10-K filed March 26, 2016 (File No. 001-35890)).
10.3*	U.K. Appointment Letter, dated January 5, 2016, between OvaScience Limited and Harald Stock (incorporated by reference to Exhibit 10.31 of the Registrant's Annual Report on Form 10-K filed March 26, 2016 (File No. 001-35890)).
10.4*	Incentive Stock Option Agreement between the Registrant and Harald Stock dated January 5, 2016.
10.5*	Nonstatutory Stock Option Agreement between the Registrant and Harald Stock dated January 5, 2016.
10.6*	Restricted Stock Unit Award Agreement between the Registrant and Harald Stock dated January 5, 2016.
10.7*	Employment Agreement, dated February 25, 2016, between the Registrant and Paul W. D. Chapman.
10.8*	Nonstatutory Stock Option Agreement between the Registrant and Paul W. D. Chapman dated March 3, 2016.
10.9*	Independent Consulting Agreement and Separation Agreement, dated March 31, 2016, between the Registrant and Arthur Tzianabos.
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 management contract or compensatory plan.