Onconova Therapeutics, Inc.
Form 10-Q
November 14, 2014
Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 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 September 30, 2014

Or

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

Commission file number: 001-36020

Onconova Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**22-3627252**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
375 Pheasant Run, Newtown, PA	**18940**
(Address of principal executive offices)	(Zip Code)

Registrant s telephone number, including area code: **(267) 759-3680**

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. x Yes o No

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

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

Large accelerated filer o	Accelerated filer o
Non-accelerated filer x (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 Act). o Yes x No

The number of outstanding shares of the registrant s common stock, par value $0.01 per share, as of October 31, 2014 was 21,692,240.

Table of Contents

ONCONOVA THERAPEUTICS, INC.

TABLE OF CONTENTS FOR QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTER ENDED SEPTEMBER 30, 2014

Table of Contents

PART I FINANCIAL INFORMATION

Item 1. Financial Statements

Onconova Therapeutics, Inc.

Condensed Consolidated Balance Sheets

	September 30, 2014 (unaudited)	December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	$ 42,348,000	$ 60,009,000
Marketable securities	14,999,000	39,994,000
Prepaid expenses and other current assets	4,278,000	4,387,000
Total current assets	61,625,000	104,390,000
Property and equipment, net	512,000	626,000
Restricted cash	125,000	125,000
Other non-current assets	12,000	12,000
Total assets	$ 62,274,000	$ 105,153,000
Liabilities and stockholders equity		
Current liabilities:		
Accounts payable	$ 5,385,000	$ 3,710,000
Accrued expenses and other current liabilities	7,202,000	5,820,000
Warrant liability		20,000
Deferred revenue	455,000	788,000
Total current liabilities	13,042,000	10,338,000
Deferred revenue, non-current	13,568,000	13,909,000
Other	1,000	6,000
Total liabilities	26,611,000	24,253,000
Commitments and contingencies		
Stockholders equity:		
Preferred stock, $0.01 par value, 5,000,000 authorized at September 30, 2014 and December 31, 2013, none issued and outstanding at September 30, 2014 and December 31, 2013		
Common stock, $0.01 par value, 75,000,000 authorized at September 30, 2014 and December 31, 2013, 21,692,240 and 21,467,482 shares issued and outstanding at September 30, 2014 and December 31, 2013	217,000	215,000
Additional paid in capital	316,266,000	311,093,000
Accumulated other comprehensive income	(8,000)	1,000
Accumulated deficit	(281,206,000)	(230,896,000)
Total Onconova Therapeutics, Inc. stockholders equity	35,269,000	80,413,000
Non-controlling interest	394,000	487,000
Total stockholders equity	35,663,000	80,900,000
Total liabilities and stockholders equity	$ 62,274,000	$ 105,153,000

See accompanying notes to condensed consolidated financial statements.

Table of Contents

Onconova Therapeutics, Inc.

Condensed Consolidated Statements of Operations (unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Revenue	$ 114,000	$ 1,116,000	$ 686,000	$ 2,823,000
Operating expenses:				
General and administrative	3,116,000	5,927,000	12,033,000	12,390,000
Research and development	11,886,000	15,293,000	39,038,000	38,096,000
Total operating expenses	15,002,000	21,220,000	51,071,000	50,486,000
Loss from operations	(14,888,000)	(20,104,000)	(50,385,000)	(47,663,000)
Change in fair value of warrant liability	1,000	(31,000)	20,000	(19,000)
Other income, net	(20,000)	46,000	(38,000)	186,000
Net loss before income taxes	(14,907,000)	(20,089,000)	(50,403,000)	(47,496,000)
Income taxes		432,000		432,000
Net loss	(14,907,000)	(20,521,000)	(50,403,000)	(47,928,000)
Net loss attributable to non-controlling interest	29,000		93,000	
Net loss attributable to Onconova Therapeutics, Inc.	(14,878,000)	(20,521,000)	(50,310,000)	(47,928,000)
Accretion of redeemable convertible preferred stock		(269,000)		(2,320,000)
Net loss applicable to common stockholders	$ (14,878,000)	$ (20,790,000)	$ (50,310,000)	$ (50,248,000)
Net loss per share of common stock, basic and diluted	$ (0.69)	$ (1.34)	$ (2.32)	$ (7.23)
Basic and diluted weighted average shares outstanding	21,691,017	15,480,416	21,639,764	6,946,248

See accompanying notes to condensed consolidated financial statements.

Table of Contents

Onconova Therapeutics, Inc.

Condensed Consolidated Statements of Comprehensive Loss (unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Net loss	$ (14,907,000)	$ (20,521,000)	$ (50,403,000)	$ (47,928,000)
Other comprehensive income, before tax:				
Foreign currency translation adjustments, net	(8,000)	(23,000)	(9,000)	(18,000)
Other comprehensive (loss) income, net of tax	(8,000)	(23,000)	(9,000)	(18,000)
Comprehensive loss	(14,915,000)	(20,544,000)	(50,412,000)	(47,946,000)
Comprehensive loss attributable to non-controlling interest	29,000		93,000	
Comprehensive loss attributable to Onconova Therapeutics, Inc.	$ (14,886,000)	$ (20,544,000)	$ (50,319,000)	$ (47,946,000)

See accompanying notes to condensed consolidated financial statements.

Table of Contents

Onconova Therapeutics, Inc.

Consolidated Statement of Stockholders Equity (unaudited)

	Stockholders Equity						
	Common Stock		Additional Paid in Capital	Accumulated deficit	Accumulated other comprehensive income	Non-controlling interest	Total
	Shares	Amount					
Balance at December 31, 2013	21,467,482	$ 215,000	$ 311,093,000	$ (230,896,000)	$ 1,000	$ 487,000	$ 80,900,000
Net loss				(50,310,000)		(93,000)	(50,403,000)
Other comprehensive income					(9,000)		(9,000)
Exercise of stock options	224,758	2,000	946,000				948,000
Stock-based compensation			4,227,000				4,227,000
Balance at September 30, 2014	21,692,240	$ 217,000	$ 316,266,000	$ (281,206,000)	$ (8,000)	$ 394,000	$ 35,663,000

See accompanying notes to condensed consolidated financial statements.

Table of Contents

Onconova Therapeutics, Inc.

Condensed Consolidated Statements of Cash Flows (unaudited)

	Nine Months Ended September 30,	
	2014	**2013**
Operating activities:		
Net loss	$ (50,403,000)	$ (47,928,000)
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	336,000	326,000
Change in fair value of warrant liabilities	(20,000)	19,000
Treasury note discount amortization	(5,000)	
Stock compensation expense	4,227,000	6,939,000
Changes in assets and liabilities:		
Prepaid expenses and other current assets	109,000	(3,601,000)
Accounts payable	1,675,000	(1,112,000)
Accrued expenses	1,382,000	3,892,000
Other liabilites	(5,000)	(14,000)
Deferred revenue	(674,000)	(2,775,000)
Net cash used in operating activities	(43,378,000)	(44,254,000)
Investing activities:		
Payments for purchase of property and equipment	(222,000)	(515,000)
Maturities of marketable securities	25,000,000	(39,990,000)
Net cash provided by (used in) investing activities	24,778,000	(40,505,000)
Financing activities:		
Proceeds from initial public offering of common stock, net of issuance costs		79,811,000
Proceeds from the exercise of stock options	948,000	51,000
Net cash provided by financing activities	948,000	79,862,000
Effect of foreign currency translation on cash	(9,000)	(18,000)
Net decrease in cash and cash equivalents	(17,661,000)	(4,915,000)
Cash and cash equivalents at beginning of period	60,009,000	81,527,000
Cash and cash equivalents at end of period	$ 42,348,000	$ 76,612,000

See accompanying notes to condensed consolidated financial statements.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements

(Unaudited)

1. Nature of Business

The Company

Onconova Therapeutics, Inc. (the Company) was incorporated in the State of Delaware on December 22, 1998 and commenced operations on January 1, 1999. The Company s headquarters are located in Newtown, Pennsylvania. The Company is a clinical-stage biopharmaceutical company focused on discovering and developing novel small molecule drug candidates to treat cancer. Using its proprietary chemistry platform, the Company has created an extensive library of targeted anti-cancer agents designed to work against specific cellular pathways that are important to cancer cells. The Company believes that the drug candidates in its pipeline have the potential to be efficacious in a wide variety of cancers without causing harm to normal cells. The Company has three clinical-stage product candidates and several preclinical programs. To accelerate and broaden the development of rigosertib, the Company s most advanced product candidate, the Company entered into a collaboration and license agreement in 2012 with Baxter Healthcare SA (Baxter), a subsidiary of Baxter International Inc., which grants Baxter certain rights to commercialize rigosertib in Europe. In 2011, the Company entered into a collaboration and license agreement with SymBio Pharmaceuticals Limited (SymBio), which grants SymBio certain rights to commercialize rigosertib in Japan and Korea. The Company has retained development and commercialization rights to rigosertib in the rest of the world, including the United States. During 2012, Onconova Europe GmbH was established as a wholly owned subsidiary of the Company for the purpose of further developing business in Europe. In April 2013, GBO, LLC, a Delaware limited liability company, (GBO) was formed pursuant to a collaboration agreement with GVK Biosciences Private Limited, a private limited company located in India, (GVK BIO) to collaborate and develop new programs using the Company s technology platform through filing of an investigational new drug application (IND) and /or conducting proof of concept studies using the Company s technology platform.

Liquidity

The Company has incurred recurring operating losses since inception. For the nine months ended September 30, 2014, the Company incurred a net loss of $50,403,000 and as of September 30, 2014, the Company had generated an accumulated deficit of $281,206,000. The Company anticipates operating losses to continue for the foreseeable future due to, among other things, costs related to research funding, development of its product candidates and its preclinical programs, strategic alliances and the development of its administrative organization. The Company will require substantial additional financing to continue to fund its operations and execute its strategy.

Since its inception, the Company raised significant capital through the issuance of redeemable convertible preferred stock, par value $0.01 per share, in ten series denominated as Series A through Series J (Series A Preferred Stock through Series J Preferred Stock, respectively, and collectively the Preferred Stock). On July 30, 2013, the Company completed its initial public offering (the IPO) of 5,941,667 shares of the Company s common stock, par value $0.01 per share (Common Stock), at a price of $15.00 per share, including 775,000 shares of Common Stock issued upon the exercise in full by the underwriters of their option to purchase additional shares at the same price to cover over-allotments. The Company received net proceeds of $79,811,000 from the sale, net of underwriting discounts and commissions and other estimated offering

expenses. Immediately prior to the consummation of the IPO, all outstanding shares of Preferred Stock automatically converted into shares of Common Stock at the applicable conversion ratio then in effect. As a result of the conversion, as of July 30, 2013, the Company had no shares of Preferred Stock outstanding.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

The accompanying condensed consolidated financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company s ability to continue as a going concern is dependent on its ability to raise additional capital to fund its research and development and commercial programs and meet its obligations. Management intends to fund future operations through additional securities offerings, licensing revenue, grants, government contracts, debt and, if any of the Company s product candidates receive marketing approval, future sales of its products. There can be no assurance, however, that the Company will be successful in obtaining financing at the level needed to sustain operations, on terms acceptable to the Company, or at all, or that the Company will obtain approvals necessary to market its products or achieve profitability or sustainable, positive cash flow.

2. Summary of Significant Accounting Policies

Basis of Presentation

The condensed consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States (GAAP) for interim financial information. Certain information and footnotes normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission (the SEC). The financial statements include the consolidated accounts of the Company, its wholly-owned subsidiary, Onconova Europe GmbH, and GBO. All significant intercompany transactions have been eliminated.

Unaudited Interim Financial Information

The accompanying condensed consolidated balance sheet as of September 30, 2014, the condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2014 and 2013, the consolidated statement of stockholders equity for the nine months ended September 30, 2014 and the condensed consolidated statements of cash flows for the nine months ended September 30, 2014 and 2013 are unaudited. The interim unaudited condensed consolidated financial statements have been prepared on the same basis as the annual audited consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company s financial position as of September 30, 2014 and the results of its operations, and its cash flows for the three and nine months ended September 30, 2014 and 2013. The financial data and other information disclosed in these notes related to the three and nine months ended September 30, 2014 and 2013 are unaudited. The results for the nine months ended September 30, 2014 are not necessarily indicative of results to be expected for the year ending December 31, 2014, any other interim periods, or any future year or period. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto for the year ended December 31, 2013 included in the Company s annual report on Form 10-K filed with the SEC on March 20, 2014.

Segment Information

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

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

2. Summary of Significant Accounting Policies (Continued)

Significant Accounting Policies

The Company s significant accounting policies are disclosed in the audited consolidated financial statements for the year ended December 31, 2013 included in the Company s annual report on Form 10-K filed with the SEC on March 20, 2014. Since the date of such financial statements, there have been no changes to the Company s significant accounting policies.

Foreign Currency Translation

The reporting currency of the Company and its U.S. subsidiary is the U.S. dollar. The functional currency of the Company s non-U.S. subsidiary is the local currency. Assets and liabilities of the foreign subsidiary are translated into U.S. dollars based on exchange rates at the end of the period. Revenues and expenses are translated at average exchange rates during the reporting period. Gains and losses arising from the translation of assets and liabilities are included as a component of accumulated other comprehensive income. Gains and losses resulting from foreign currency transactions are reflected within the Company s results of operations. The Company has not utilized any foreign currency hedging strategies to mitigate the effect of its foreign currency exposure.

Recent Accounting Pronouncements

In July 2013, the Financial Accounting Standards Board (the FASB) issued guidance clarifying that an unrecognized tax benefit, or a portion of an unrecognized tax benefit, should be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward if such settlement is required or expected in the event the uncertain tax benefit is disallowed. In situations where a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date under the tax law of the applicable jurisdiction or the tax law of the jurisdiction does not require, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit should be presented in the financial statements as a liability and should not be netted with the deferred tax asset. The guidance was effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The Company adopted these new provisions during the quarter beginning January 1, 2014. The guidance did not have an impact on the Company s consolidated financial position, results of operations or cash flows.

In May 2014, the FASB issued guidance on revenue from contracts with customers that will supersede most current revenue recognition guidance. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance is effective for the interim and annual periods beginning on or after December 15, 2016, and early adoption is not permitted. The guidance permits the use of either a retrospective or cumulative effect transition method. The Company has not yet selected a transition method and is currently evaluating the impact of the amended guidance on the Company s consolidated financial position, results of operations and related disclosures.

In August 2014, the FASB issued guidance on determining when and how to disclose going-concern uncertainties in the financial statements. The new standard requires management to perform interim and annual assessments of an entity s ability to continue as a going concern within one year of the date the financial statements are issued. An entity must provide certain disclosures if conditions or events raise substantial doubt about the entity s ability to continue as a going concern. The guidance applies to all entities and is effective for annual periods ending after December 15, 2016, and interim periods thereafter, with early adoption permitted. The Company is evaluating the potential impact of the new guidance on its quarterly reporting process and its consolidated financial position, results of operations and related disclosures.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

3. Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The Company utilizes a valuation hierarchy for disclosure of the inputs to the valuations used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are 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 inputs are unobservable inputs based on the Company s own assumptions used to measure assets and liabilities at fair value. A financial asset or liability s classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The Company had no assets or liabilities classified as Level 1 or Level 2. The warrant liability (see Note 7) is classified as Level 3.

The Company has classified the warrants as a liability and has re-measured the liability to estimated fair value at September 30, 2014 and December 31, 2013, using the Black-Scholes option pricing model with the following assumptions: contractual life according to the remaining terms of the warrants, no dividend yield, weighted average risk-free interest rates of 0.04% and 0.34% at September 30, 2014 and December 31, 2013, respectively, and weighted average volatility of 58.98% and 74.40% at September 30, 2014 and December 31, 2013, respectively. The volatility was based on average historical share price trading data for a group of 11 comparable companies.

The following fair value hierarchy table presents information about the Company s financial assets and liabilities measured at fair value on a recurring basis as of September 30, 2014 and December 31, 2013:

	Fair Value Measurement as of September 30, 2014				Fair Value Measurement as of December 31, 2013			
	Level 1	Level 2	Level 3	Balance	Level 1	Level 2	Level 3	Balance
Warrant liability	$	$	$	$	$	$	$ 20,000	$ 20,000
Total	$	$	$	$	$	$	$ 20,000	$ 20,000

The following table presents a reconciliation of the Company s liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the nine months ended September 30, 2014:

		Warrant Liability
Balance at December 31, 2013	$	20,000
Change in fair value upon re-measurement		(20,000)
Balance at September 30, 2014	$	

There were no transfers between Level 1 and Level 2 in any of the periods reported.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

4. Marketable Securities

Marketable securities with initial maturities longer than three months but that mature within one year from the balance sheet date are classified as current assets and are summarized as follows:

	September 30, 2014	December 31, 2013
U.S. Treasury obligations	$ 14,999,000	$ 39,994,000

As of September 30, 2014 and December 31, 2013, all of the Company s investments were classified as held-to-maturity.

5. Net Loss Per Share of Common Stock

The following potentially dilutive securities outstanding at September 30, 2014 and 2013 have been excluded from the computation of diluted weighted average shares outstanding, as they would be antidilutive:

	September 30,	
	2014	2013
Warrants	4,597	4,597
Stock options	4,112,326	3,549,842
	4,116,923	3,554,439

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

6. Balance Sheet Detail

Prepaid expenses and other current assets:

	September 30, 2014	December 31, 2013
Research and development	$ 2,571,000	$ 2,242,000
Manufacturing	444,000	1,051,000
Insurance	851,000	645,000
Other	412,000	449,000
	$ 4,278,000	$ 4,387,000

Property and equipment:

	September 30, 2014	December 31, 2013
Property and equipment	$ 2,621,000	$ 2,402,000
Accumulated depreciation	(2,109,000)	(1,776,000)
	$ 512,000	$ 626,000

Accrued expenses and other current liabilities:

	September 30, 2014	December 31, 2013
Research and development	$ 4,571,000	$ 4,625,000
Employee compensation	2,122,000	509,000
Professional fees	450,000	310,000
Taxes		302,000
Other	59,000	74,000
	$ 7,202,000	$ 5,820,000

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

7. Warrants

In June 2009, the Company issued 6,128 Series G Preferred Stock warrants in connection with a Loan and Security Agreement. The warrants were initially recorded at their fair value calculated using the Black-Scholes model. The warrants are classified as liabilities due to certain anti-dilution provisions, and the value of the warrants is adjusted to current fair value at each reporting period end. For the nine months ended September 30, 2014 and 2013, the Company recorded $20,000 and $(19,000), respectively, in the consolidated statements of operations related to the change in the fair value of the outstanding warrants.

Immediately prior to the consummation of the IPO, the 6,128 Series G Preferred Stock warrants outstanding were automatically converted into warrants to purchase 4,597 shares of Common Stock (after giving effect to the one-for-1.333 reverse stock split that became effective on July 17, 2013 in connection with the IPO). The outstanding warrants, unless sooner exercised, will expire on July 30, 2016.

8. Stock-Based Compensation

The Company recognized stock-based compensation expense as follows for the three and nine months ended September 30, 2014 and 2013:

	Three Months ended September 30,		Nine Months ended September 30,	
	2014	2013	2014	2013
General and administrative	$ 430,000	$ 2,821,000	$ 1,754,000	$ 4,347,000
Research and development	1,156,000	1,275,000	2,473,000	2,592,000
	$ 1,586,000	$ 4,096,000	$ 4,227,000	$ 6,939,000

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

8. Stock-Based Compensation (Continued)

Stock options may be granted with exercise prices of not less than the estimated fair value of the Common Stock on the date of grant and generally vest over a period of up to four years. Stock options granted under the Company s 2013 Equity Compensation Plan generally expire no later than ten years from the date of grant. A summary of stock option activity for the nine months ended September 30, 2014 is as follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)
Outstanding at December 31, 2013	4,344,365	$ 11.05	7.91
Granted	201,500	6.60	
Exercised	(224,758)	4.20	
Forfeited	(208,781)	12.44	
Outstanding at September 30, 2014	4,112,326	$ 11.14	7.52
Vested or expected to vest at September 30, 2014	4,042,828	$ 11.14	7.52
Exercisable at September 30, 2014	2,739,222	$ 10.21	6.85

The Company utilized the Black-Scholes valuation model for estimating the fair value of the stock compensation granted, with the following weighted-average assumptions:

	Employee Stock Options For the Nine Months Ended September 30, 2014
Average risk-free interest rates	1.86%
Average expected life (in years)	6.02
Expected volatility	76.99%
Weighted-average fair value (in dollars)	$ 4.47

Due to the Company s limited operating history as a public company and a lack of company specific historical and implied volatility data, the Company has based its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. When selecting these public companies on which it has based its expected stock price volatility, the Company selected companies with comparable characteristics to it, including enterprise value, risk profiles, position within the industry, and with historical share price information sufficient to

meet the expected life of the stock-based awards. The historical volatility data was computed using the daily closing prices for the selected companies shares during the equivalent period of the calculated expected term of the stock-based awards. Due to its lack of sufficient historical data, the Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available. The Company has estimated the expected life of its employee stock options using the simplified method, whereby, the expected life equals the arithmetic average

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

8. Stock-Based Compensation (Continued)

of the vesting term and the original contractual term of the option. The risk-free interest rates for periods within the expected life of the option are based on the U.S. Treasury yield curve in effect during the period the options were granted. The Company has never paid, and does not expect to pay dividends in the foreseeable future.

Based on the Company s historical experience, the Company has assumed an annualized forfeiture rate of 1.69% for its options. Under the true-up provisions of the stock based compensation guidance, the Company will record additional expense if the actual forfeiture rate is lower than estimated, and will record a recovery of prior expense if the actual forfeiture is higher than estimated.

As of September 30, 2014, there was $8,018,000 of unrecognized compensation expense related to the unvested stock options issued from April 23, 2013 through September 30, 2014, which is expected to be recognized over a weighted-average period of approximately 3.00 years.

At certain times throughout the Company s history, the chairman of the Company s board of directors, who is also a significant stockholder of the Company (the Significant Holder), has afforded option holders the opportunity for liquidity in transactions in which options were exercised and the shares of Common Stock issued in connection therewith were simultaneously purchased by the Significant Holder (each, a Purchase Transaction). Because the Company had established a pattern of providing cash settlement alternatives for option holders, the Company has accounted for its stock-based compensation awards as liability awards, the fair value of which is then re-measured at each balance sheet date.

On April 23, 2013, the Company distributed a notification letter to all equity award holders under the Company s 2007 Equity Compensation Plan (the 2007 Plan) advising them that Purchase Transactions would no longer occur, unless, at the time of a Purchase Transaction, the option holder has held the Common Stock issued upon exercise of options for a period of greater than six months prior to selling such Common Stock to the Significant Holder and that any such sale to the Significant Holder would be at the fair value of the Common Stock on the date of such sale. Based on these new criteria for Purchase Transactions, the Company remeasured options outstanding under the 2007 Plan as of April 23, 2013 to their intrinsic value and reclassified such options from liabilities to stockholders deficit within the Company s consolidated balance sheets, which amounted to $14,482,000. As of September 30, 2014, there was $892,000 of unrecognized compensation expense related to these unvested awards, which is expected to be recognized over a weighted-average period of approximately 1.95 years.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

9. Research Agreements

The Company has entered into various licensing and right-to-sublicense agreements with educational institutions for the exclusive use of patents and patent applications, as well as any patents that may develop from research being conducted by such educational institutions in the field of anticancer therapy, genes and proteins. Results from this research have been licensed to the Company pursuant to these agreements. Under one of these agreements with Temple University (Temple), the Company is required to make annual maintenance payments to Temple and royalty payments based upon a percentage of sales generated from any products covered by the licensed patents, with minimum specified royalty payments. As no sales had been generated through September 30, 2014 under the licensed patents, the Company has not incurred any royalty expenses related to this agreement. In addition, the Company is required to pay Temple 25% of any sublicensing fees received by the Company. In 2011, the Company recorded $1,875,000 of expense related to the Temple agreement in connection with the collaboration agreement the Company executed with SymBio. In 2012, the company recorded $12,500,000 of expense related to the Temple agreement in connection with the collaboration agreement the Company executed with Baxter. These expenses were recorded in the consolidated statement of operations as research and development expenses.

In May 2010, the Company signed a funding agreement with the Leukemia and Lymphoma Society (LLS) to fund the development of rigosertib. Under this agreement, the Company was entitled to receive milestone payments of up to $10,000,000 through 2013 in connection with clinical trials to be conducted. The aggregate milestone payment amount was subsequently reduced to $8,000,000 pursuant to an amendment signed in January 2013, after which LLS was not obligated to fund any further amounts. During the year ended December 31, 2012, in connection with the execution of the Baxter agreement (Note 10), the Company paid $1,000,000 to LLS and recorded this amount in research and development expenses. This payment reduced the maximum milestone and royalty payment obligation under this agreement to $23,000,000 at September 30, 2014 and December 31, 2013. No further payments are due to LLS if rigosertib does not obtain regulatory approval. If rigosertib is approved by the regulatory authorities, the Company must proceed with commercialization of the licensed product or repay the amount funded. LLS is entitled to receive regulatory and commercial milestone payments and royalties from the Company based on the Company s net sales of the licensed product. As a result of the potential obligation to repay the funds under this arrangement, the $8,000,000 of milestone payments received, have been recorded as deferred revenue at September 30, 2014 and December 31, 2013.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements

Baxter Agreement

In September 2012, the Company entered into a development and license agreement with Baxter granting Baxter an exclusive, royalty-bearing license for the research, development, commercialization and manufacture (in specified instances) of rigosertib in all therapeutic indications in Europe (the Baxter Territory) In accordance with this agreement, Baxter made a $50,000,000 upfront payment to the Company. In July 2012, Baxter purchased $50,000,000 of the Company s Series J Preferred Stock, which automatically converted to shares of Common Stock immediately prior to the consummation of the IPO. Baxter also invested $4,950,000 in the Company s IPO.

Under the terms of the agreement, the Company was initially required to perform research and development to advance three initial rigosertib indications, rigosertib intravenous (IV) in higher risk myelodysplastic syndrome (MDS) patients, rigosertib IV in pancreatic cancer patients and rigosertib oral in lower risk MDS patients, through Phase 3, Phase 3 and Phase 2 clinical trials, respectively.

In December 2013, a pre-planned interim futility and safety analysis of the pancreatic cancer trial was performed and the trial was discontinued. As a result, at this time the Company is not pursuing a pancreatic cancer indication.

In February 2014, the Company announced top-line analysis of a Phase 3 trial of rigosertib IV in higher risk MDS patients. Although the results of this study showed numerical improvement in median overall survival in the rigosertib treated patients, the observed improvement in survival of 2.4 months was not sufficient to establish the required level of statistical significance and, therefore did not achieve the primary endpoint of the trial. If an additional Phase 3 clinical trial for rigosertib IV in higher-risk MDS patients is required to obtain marketing approval in the Baxter Territory, the Company could elect to have Baxter fund a percentage of the costs of such additional trial up to a specified maximum; however, any such election would reduce potential future milestone payments.

At the completion of the current Phase 2 trial for rigosertib oral in lower risk MDS patients and the review of the resulting data and findings, the Company and Baxter may decide whether or not to pursue further development of rigosertib for this indication. If the Company and Baxter mutually agree to progress the development of rigosertib oral in lower risk MDS patients, then certain milestone payments will be payable to the Company, and the Company will be required to use its commercially reasonable efforts to progress the development of rigosertib for this indication to a drug approval application in the Baxter Territory.

The Company and Baxter may work together for potential future rigosertib indications, beyond the initial indications noted above. Generally, if Baxter chooses to participate in the development of additional indications, Baxter will be responsible for a percentage of all research and development costs and expenses and the Company could earn additional milestone payments. Baxter has full responsibility for all commercialization activities for the product in the Baxter Territory, at Baxter s sole cost and expense.

The Company and Baxter have agreed to negotiate a supply agreement under terms satisfactory to both parties whereby the Company will supply Baxter with Baxter s required levels of product to support commercialization efforts in the Baxter Territory. Baxter also has the right to engage third parties for the manufacture and supply of its requirements for the licensed product.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements (Continued)

Under the terms of the agreement, Baxter made an upfront payment of $50,000,000. The Company is eligible to receive pre-commercial milestone payments of up to an aggregate of $337,500,000 if specified development and regulatory milestones are achieved. The potential pre-commercial development milestone payments to the Company include the following:

- $50,000,000 for mutual agreement to file for any marketing approval of rigosertib for higher-risk MDS in either the European Union or in all of Germany, United Kingdom, France, Italy and Spain;

- $25,000,000 for the joint decision to proceed with the development of rigosertib for lower-risk MDS;

- $25,000,000 for each drug approval application filed for indications specified in the agreement; and

- up to $212,500,000 for the marketing approvals of the rigosertib MDS indications specified in the agreement based, in part, on whether an additional Phase 3 trial is required to obtain marketing approval for rigosertib IV in higher-risk MDS patients.

The Company is also potentially eligible to receive an additional $20,000,000 pre-commercial milestone payment related to the timing of regulatory approval of the MDS IV indication in Europe. In addition to these pre-commercial milestones, the Company is eligible to receive up to an aggregate of $250,000,000 in milestone payments based on Baxter s achievement of pre-specified threshold levels of annual net sales of rigosertib. The Company will also be entitled to receive royalties at percentage rates ranging from the low-teens to the low-twenties on net sales of rigosertib by Baxter in the Baxter Territory.

The agreement with Baxter will remain in effect until the expiration of all applicable royalty terms and satisfaction of all payment obligations in each licensed country, unless terminated earlier in accordance with the terms of the agreement. Either party may terminate due to the uncured material breach or bankruptcy of the other party, force majeure, or in the event of a specified commercial failure. The Company may terminate the agreement in the event that Baxter brings a challenge against it in relation to the licensed patents. Baxter may terminate the agreement without cause upon 180 days prior written notice.

The Company determined that the deliverables under the Baxter agreement include the exclusive, royalty-bearing, sublicensable license to rigosertib and the research and development services to be performed by the Company. The Company concluded that the license had standalone value to Baxter and was separable from the research and development services because the license is sublicensable, there are no restrictions as to Baxter s use of the license and Baxter has significant research capabilities in this field.

In determining the separate units of accounting, the Company considered applicable accounting guidance and noted that in an arrangement with multiple deliverables, the delivered item or items shall be considered a separate unit of accounting if the delivered item or items have value to the customer on a stand-alone basis. The item or items have value on a stand-alone basis if they are sold separately by any vendor or the customer could resell the delivered item(s) on a stand-alone basis. In the context of a customer s ability to resell the delivered item(s), this criterion does not require the existence of an observable market for the deliverable(s).

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements (Continued)

The Baxter agreement allows Baxter to sublicense rigosertib and its ability to sublicense is not contingent on the approval or right of first refusal by the Company. The Company determined that Baxter s ability to sublicense the intellectual property to others demonstrates that the license has stand-alone value. In addition, at the time of entering into the Baxter agreement in September 2012, the rigosertib program was in a Phase 3 clinical trial for higher risk MDS, a Phase 3 clinical trial for pancreatic cancer and a Phase 2 trial for lower risk MDS. The protocols for the clinical trials had been written and provided to Baxter and a Special Protocol Assessment had already been granted to the Company by the U.S. Food and Drug Administration (the FDA) for higher risk MDS. These later stage clinical trials, where protocols have been prepared and trials are in process, can be completed more easily by entities other than the Company, as compared to earlier stage clinical trials. The remaining services to be performed by the Company are not proprietary and could be performed by other qualified parties. For example, the Company relies on clinical research organizations (CROs) to complete the clinical trials, and Baxter could engage the same or similar CROs to complete the trials on its behalf. Although Baxter is not performing development activities related to rigosertib, Baxter possesses the internal expertise (or a vendor could be hired) to complete the efforts under the rigosertib programs without further assistance from the Company.

Baxter develops, manufactures and markets products that save and sustain the lives of people with hemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in medical devices, pharmaceuticals and biotechnology to create products that advance patient care worldwide. Baxter employs over 50,000 people, with significant revenues and expenditures for research and development. Baxter has expertise in completing clinical trials, assessing clinical trial results and preparing regulatory filings and has also developed and obtained regulatory and marketing approval in Europe for numerous products used to treat hematologic conditions. Baxter has expertise in rare hematologic conditions, and the Company believes that rigosertib is a natural complement to Baxter s existing treatments for patients with these conditions.

Baxter has the rights and full access to past and future intellectual information in order to obtain regulatory approval of rigosertib in Europe. In connection with the Baxter agreement, the Company licensed to Baxter all information and all patents controlled by the Company necessary for the development, manufacture, use and sale of rigosertib and all present and future formulations and dosages in all present and future therapeutic indications in the licensed territory.

Accordingly, given Baxter s ability to sublicense under the agreement and its ability internally or with outside help to conduct the ongoing development efforts, the Company concluded that the license has stand-alone value. In order to determine if the license can be treated as a separate unit of accounting, the Company also considered whether there is a general right of return associated with the license. The $50,000,000 upfront payment received by the Company is non-refundable; therefore, there is no right of return for the license. As a result, the Company concluded that the license is a separate unit of accounting.

The Company was not able to establish vendor-specific objective evidence of selling price or third-party evidence for either the license or the research and development services and instead allocated the arrangement consideration between the license and research and development

services based on their relative selling prices using best estimate of selling price (BESP). Management developed the BESP of the license using a discounted cash flow model, taking into consideration assumptions including the development and commercialization timeline, discount rate and probability of success. Management utilized a third party valuation specialist to assist with the determination of BESP of the license. Management estimated the selling price of the research and development services using third party costs and a discounted cash flow model. The estimated selling prices utilized assumptions including internal estimates of research and development personnel needed to perform the research and development services; and estimates of expected cash outflows to third parties for services and supplies over the expected period that the services will be performed.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements (Continued)

The key assumptions in these models included the following market conditions and entity-specific factors: (a) the specific rights provided under the license, (b) the stage of development of rigosertib and estimated remaining development and commercialization timelines, (c) the probability of successfully developing and commercializing rigosertib, (d) the market size including the associated sales figures which generate royalty revenue, (e) cost of goods sold, which was assumed to be a specified percentage of revenues based on estimated cost of goods sold of a typical oncology product, (f) sales and marketing costs, which were based on the costs required to field an oncology sales force and marketing group, including external costs required to promote an oncology product, (g) the expected product life of rigosertib assuming commercialization and (h) the competitive environment. The Company utilized a discount rate of 16%, representing the cost of capital derived from returns on equity for comparable companies.

Based on management s analyses, it was determined that the BESP of the license was $120,000,000 and the BESP of the research and development services was $20,600,000. As noted above, the Company received an up-front payment of $50,000,000 under the Baxter agreement, which represents the allocable agreement consideration. Based on the respective BESPs, this payment was allocated $42,400,000 to the license and $7,600,000 to the research and development services. Since the delivery of the license occurred upon the execution of the Baxter agreement and there was no general right of return, $42,400,000 of the $50,000,000 upfront payment was recognized upon the execution of the Baxter agreement. The portion allocated to research and development services was recognized over the period of performance on a proportional performance basis through March 31, 2014. Management estimated the period of performance to be the period necessary for completion of the non-contingent obligations to perform research and development services required to advance the three formulations of rigosertib described above. As of March 31, 2014, all of the deferred revenue related to such research and development services was recognized. The Company recognized research and development revenue under the Baxter agreement of $0 and $979,000, for the three months ended September 30, 2014 and 2013, respectively, and $333,000 and $2,435,000, for the nine months ended September 30, 2014 and 2013, respectively.

The Company and Baxter have agreed to establish a joint committee to facilitate the governance and oversight of the parties activities under the agreements. Management considered whether participation on the joint committee may be a deliverable and determined that it was not a deliverable. Had management considered participation on the joint committee as a deliverable, it would not have had a material impact on the accounting for the arrangement based on the analysis of the estimated selling price of such participation.

As noted above, in July 2012, Baxter purchased Series J Preferred Stock. Because the Series J Preferred Stock was acquired within several months of the Baxter development and license agreement, management considered whether the Preferred Stock was issued at fair value and if not, whether the consideration received for the Series J Preferred Stock ($50,000,000) or for the collaboration and license agreement ($50,000,000) should be allocated in the financial statements in a manner differently than the prices stated in the agreements. Management, with the assistance of an outside valuation specialist, determined that the price paid by Baxter for the Series J Preferred Stock approximated its fair value, and therefore the consideration received under the agreements was allocated in accordance with terms of the individual agreements.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements (Continued)

SymBio Agreement

In July 2011, the Company entered into a license agreement with SymBio, as subsequently amended, granting SymBio an exclusive, royalty-bearing license for the development and commercialization of rigosertib in Japan and Korea. Under the SymBio license agreement, SymBio is obligated to use commercially reasonable efforts to develop and obtain market approval for rigosertib inside the licensed territory and the Company has similar obligations outside of the licensed territory. The Company has also entered into an agreement with SymBio providing for it to supply SymBio with development-stage product. Under the SymBio license agreement, the Company also agreed to supply commercial product to SymBio under specified terms that will be included in a commercial supply agreement to be negotiated prior to the first commercial sale of rigosertib. The supply of development-stage product and the supply of commercial product will be at the Company s cost plus a defined profit margin. Sales of development-stage product have been de minimis. The Company has additionally granted SymBio a right of first negotiation to license or obtain the rights to develop and commercialize compounds having a chemical structure similar to rigosertib in the licensed territory.

Under the terms of the SymBio license agreement, the Company received an upfront payment of $7,500,000. The Company is eligible to receive milestone payments of up to an aggregate of $22,000,000 from SymBio upon the achievement of specified development and regulatory milestones for specified indications. Of the regulatory milestones, $5,000,000 is due upon receipt of marketing approval in the United States for rigosertib IV in higher risk MDS patients, $3,000,000 is due upon receipt of marketing approval in Japan for rigosertib IV in higher risk MDS patients, $5,000,000 is due upon receipt of marketing approval in the United States for rigosertib oral in lower risk MDS patients, and $5,000,000 is due upon receipt of marketing approval in Japan for rigosertib oral in lower risk MDS patients. Furthermore, upon receipt of marketing approval in the United States and Japan for an additional specified indication of rigosertib, which the Company is currently not pursuing, an aggregate of $4,000,000 would be due. In addition to these pre-commercial milestones, the Company is eligible to receive tiered milestone payments based upon annual net sales of rigosertib by SymBio of up to an aggregate of $30,000,000.

Further, under the terms of the SymBio license agreement, SymBio will make royalty payments to the Company at percentage rates ranging from the mid-teens to 20% based on net sales of rigosertib by SymBio.

Royalties will be payable under the SymBio agreement on a country-by-country basis in the licensed territory, until the later of the expiration of marketing exclusivity in those countries, a specified period of time after first commercial sale of rigosertib in such country, or the expiration of all valid claims of the licensed patents covering rigosertib or the manufacture or use of rigosertib in such country. If no valid claim exists covering the composition of matter of rigosertib or the use of or treatment with rigosertib in a particular country before the expiration of the royalty term, and specified competing products achieve a specified market share percentage in such country, SymBio s obligation to pay the Company royalties will continue at a reduced royalty rate until the end of the royalty term. In addition, the applicable royalties payable to the Company may be reduced if SymBio is required to pay royalties to third-parties for licenses to intellectual property rights necessary to develop,

use, manufacture or commercialize rigosertib in the licensed territory. The license agreement with SymBio will remain in effect until the expiration of the royalty term. However, the SymBio license agreement may be terminated earlier due to the uncured material breach or bankruptcy of a party, or force majeure. If SymBio terminates the license agreement in these circumstances, its licenses to rigosertib will survive, subject to SymBio s milestone and royalty obligations, which SymBio may elect to defer and offset against any damages that may be determined to be due from the Company. In addition, the Company may terminate the license agreement in the event that SymBio brings a challenge against it in relation to the licensed patents, and SymBio may terminate the license agreement without cause by providing the Company with written notice within a specified period of time in advance of termination.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

10. License and Collaboration Agreements (Continued)

The Company determined that the deliverables under the SymBio agreement include the exclusive, royalty-bearing, sublicensable license to rigosertib, the research and development services to be provided by the Company and its obligation to serve on a joint committee. The Company concluded that the license did not have standalone value to SymBio and was not separable from the research and development services, because of the uncertainty of SymBio s ability to develop rigosertib in the SymBio territory on its own and the uncertainty of SymBio s ability to sublicense rigosertib and recover a substantial portion of the original upfront payment of $7,500,000 paid by SymBio to the Company.

The supply of rigosertib for SymBio s commercial requirements is contingent upon the receipt of regulatory approvals to commercialize rigosertib in Japan and Korea. Because the Company s commercial supply obligation was contingent upon the receipt of future regulatory approvals, and there were no binding commitments or firm purchase orders pending for commercial supply at or near the execution of the agreement, the commercial supply obligation is deemed to be contingent and is not valued as a deliverable under the SymBio agreement. If SymBio orders the supplies from the Company, the Company expects the pricing for this supply to equal its third-party manufacturing cost plus a pre-negotiated percentage, which will not result in a significant incremental discount to market rates.

Due to the lack of standalone value for the license, research and development services, and joint committee obligation, the upfront payment is being recognized ratably using the straight line method through December 2027, the expected term of the agreement. The Company recognized revenues under this agreement in the amounts of $114,000 and $113,000 for the three months ended September 30, 2014 and 2013, respectively, and $341,000 and $341,000 for the nine months ended September 30, 2014 and 2013, respectively. In addition, the Company recognized revenues related to the supply agreement with SymBio in the amounts of $0 and $23,000 for the three months ended September 30, 2014 and 2013, respectively, and $12,000 and $47,000 for the nine months ended September 30, 2014 and 2013, respectively.

11. Preclinical Collaboration

In December 2012, the Company agreed to form GBO, an entity jointly-owned by both the Company and GVK BIO. The purpose of GBO is to collaborate on and develop two programs through filing of an investigational new drug application (IND) and/or conducting proof of concept studies using the Company s technology platform.

During 2013, GVK BIO made an initial capital contribution of $500,000 in exchange for a 10% interest in GBO, and the Company made an initial capital contribution of a sub-license to all the intellectual property controlled by the Company related to the two specified programs in exchange for a 90% interest. Under the terms of the agreement, GVK BIO may make additional capital contributions. The GVK BIO percentage interest in GBO may change from the initial 10% to up to 50%, depending on the amount of its total capital contributions. The Company evaluates its variable interests in GBO on a quarterly basis and has determined that it is the primary beneficiary.

For thirty days following the 15-month anniversary of the commencement of either of the two programs, the Company will have an option to (i) cancel the license and (ii) purchase all rights in and to that program. There are three of these buy-back scenarios depending on the stage of development of the underlying assets. GVK BIO will have operational control of GBO and the Company will have strategic and scientific control.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

12. Initial Public Offering

On July 24, 2013, the Company s Registration Statement was declared effective by the SEC, and on July 25, 2013, the Company s Common Stock began trading on the NASDAQ Global Market under the symbol ONTX.

On July 30, 2013, immediately prior to the consummation of the IPO, all outstanding shares of Preferred Stock automatically converted into shares of Common Stock at the applicable conversion ratio then in effect. Commencing with the conversion, the Company has had no shares of Preferred Stock outstanding.

On July 30, 2013, the Company completed the IPO. The Company received net proceeds of $79,811,000 from the IPO, net of underwriting discounts and commissions and other offering expenses.

In preparation for the IPO, the Company s board of directors and stockholders approved a one-for-1.333 reverse stock split of the Company s Common Stock. The reverse stock split became effective on July 17, 2013. All Common Stock share and per share amounts in the condensed consolidated financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital. The reverse stock split did not result in a retroactive adjustment of share amounts for the Preferred Stock. In addition, in July 2013, the Company s board of directors and stockholders approved an amendment of the Company s certificate of incorporation to, among other things, change the definition of a designated public offering to remove the per share price requirement and to set the threshold at gross proceeds to the Company of at least $25.0 million.

13. Related-Party Transactions

The Company has entered into a research agreement, as subsequently amended, with the Mount Sinai School of Medicine (Mount Sinai), with which a member of its board of directors and a significant stockholder is affiliated. Mount Sinai is undertaking research on behalf of the Company on the terms set forth in the agreements. Mount Sinai, in connection with the Company, will prepare applications for patents generated from the research. Results from all projects will belong exclusively to Mount Sinai, but the Company will have an exclusive option to license any inventions. Payments to Mount Sinai under this research agreement for the three months ended September 30, 2014 and 2013 were $715,000 and $420,000, respectively and for the nine months ended September 30, 2014 and 2013 were $1,010,000 and $645,000, respectively. At September 30, 2014 and December 31, 2013, the Company owed Mount Sinai $191,000 and $0, respectively, which is included in accounts payable on the consolidated balance sheets.

The Company outsources the synthesis of some of its chemical compounds to vendors in the United States and in foreign countries. During 2013, a supplier, of which a member of the Company s board of directors and a significant stockholder was an owner, produced one of these compounds under contract. The Company s aggregate payments for these services for the three months ended September 30, 2014 and 2013 were $0 and $0, respectively and for the nine months ended September 30, 2014 and 2013 were $0 and $107,000, respectively. At September 30, 2014 and December 31, 2013, the Company had no outstanding amounts payable to this supplier. The board member is no longer affiliated with this company.

Table of Contents

Onconova Therapeutics, Inc.

Notes to Condensed Consolidated Financial Statements (Continued)

(Unaudited)

13. Related-Party Transactions (Continued)

The Company purchases chemical compounds and sources development services from corporations owned by a former member of its board of directors. The Company s aggregate payments to these suppliers for the three months ended September 30, 2014 and 2013 were $61,000 and $634,000, respectively and for the nine months ended September 30, 2014 and 2013 were $446,000 and $939,000, respectively. At September 30, 2014 and December 31, 2013, the Company owed these suppliers $0 and $156,000 respectively, which is included in accounts payable on the consolidated balance sheets. The Company also rents office space in Pennington, New Jersey from a corporation related to these suppliers and affiliated with the former member of our board of directors.

The Company has entered into a consulting agreement with a member of its board of directors, who is also a significant stockholder. The board member provides consulting services to the Company on the terms set forth in the agreement. Payments to this board member for the three months ended September 30, 2014, and 2013 were $47,000 and $45,000, respectively and for the nine months ended September 30, 2014 and 2013 were $146,000 and $136,000, respectively. At September 30, 2014 and December 31, 2013, the Company had no outstanding amounts payable under this agreement.

14. Subsequent Event

In October 2014, the Company entered into a sales agreement with Cantor Fitzgerald & Co. (Cantor) to create an at-the-market equity program under which the Company from time to time may offer and sell shares of its Common Stock, having an aggregate offering price of up to $20,000,000 through Cantor. Upon delivery of a placement notice and subject to the terms and conditions of the sales agreement, Cantor will use its commercially reasonable efforts to sell the shares from time to time, based upon the Company s instructions. The Company has provided Cantor with customary indemnification rights, and Cantor will be entitled to a commission of up to 3.0% of the gross proceeds per share sold. Sales of shares, if any, under the sales agreement may be made in transactions that are deemed to be at the market offerings as defined in Rule 415 under the Securities Act of 1933, as amended, including sales made by means of ordinary brokers transactions, including on The NASDAQ Global Market, at market prices or as otherwise agreed with Cantor. The Company has no obligation to sell any shares under the sales agreement, and may at any time suspend offers under the sales agreement or terminate the sales agreement. A registration statement relating to the shares has been filed with the SEC but has not yet become effective. The shares may not be sold nor may offers to buy be accepted prior to the time that the registration statement becomes effective. This report shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the shares in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

Table of Contents

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

The following Management s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with interim unaudited condensed consolidated financial statements contained in Part I, Item 1 of this quarterly report, and the audited consolidated financial statements and notes thereto for the year ended December 31, 2013 and the related Management s Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our annual report on Form 10-K filed with the SEC on March 20, 2014. As used in this report, unless the context suggests otherwise, we, us, our, the Company or Onconova refer to Onconova Therapeutics, Inc. and its consolidated subsidiaries.

Cautionary Note Regarding Forward-Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements. We may, in some cases, use terms such as believes, estimates, anticipates, expects, plans, intends, may, could, might, will, should, approximately or other words that convey uncertainty of outcomes to identify these forward-looking statements. Forward-looking statements appear in a number of places throughout this report, and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned non-clinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, protection of our intellectual property portfolio, the degree of clinical utility of our products, particularly in specific patient populations, our ability to develop commercial functions, expectations regarding clinical trial data, our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this report, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this report. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate are consistent with the forward-looking statements contained in this report, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

- our needs for additional financing and our ability to obtain sufficient funds on acceptable terms when needed;

- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;

- the success and timing of our non-clinical studies and clinical trials;

• the difficulties in obtaining and maintaining regulatory approval of our product candidates, and the labeling under any approval we may obtain;

• our plans and ability to develop and commercialize our product candidates;

• our failure to recruit or retain key scientific or management personnel or to retain our executive officers;

• the size and growth of the potential markets for our product candidates and our ability to serve those markets;

• regulatory developments in the United States and foreign countries;

• the rate and degree of market acceptance of any of our product candidates;

• obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;

• the successful development of our commercialization capabilities, including sales and marketing capabilities;

Table of Contents

• recently enacted and future legislation regarding the healthcare system;

• the success of competing therapies and products that are or become available;

• our dependence on collaboration agreements with other pharmaceutical companies, such as Baxter and SymBio, for commercialization of our products and our ability to achieve certain milestones under those agreements; and

• the performance of third parties, including contract research organizations and third-party manufacturers.

Any forward-looking statements that we make in this report speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

You should also read carefully the factors described in the Risk Factors contained in Part II, Item 1A of this quarterly report and in our annual report on Form 10-K filed with the SEC on March 20, 2014, to better understand significant risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this report and you should not place undue reliance on any forward-looking statements.

Overview

We are a clinical-stage biopharmaceutical company focused on discovering and developing novel small molecule drug candidates to treat cancer. Using our proprietary chemistry platform, we have created an extensive library of targeted anti-cancer agents designed to work against specific cellular pathways important to cancer cells. We believe that the drug candidates in our pipeline have the potential to be efficacious in a wide variety of cancers without causing harm to normal cells. We have three clinical-stage product candidates and several preclinical programs, although the majority of our current efforts are focused on our lead product candidate, rigosertib.

Rigosertib

Rigosertib, our most advanced product candidate, is being tested as a single agent and in combination with azacitidine and with chemoradiation therapy, in clinical trials of patients with myelodysplastic syndromes, or MDS, and other cancers. To date, we have enrolled more than 1,000 patients in rigosertib clinical trials. We have collaboration agreements with Baxter Healthcare SA, or Baxter, and SymBio Pharmaceuticals Limited, or SymBio, which grant Baxter certain rights to commercialize rigosertib in Europe and grant SymBio certain rights to commercialize

rigosertib in Japan and Korea. We have retained development and commercialization rights to rigosertib in the rest of the world, including in the United States. Rigosertib is believed to act in cancer cells as an inhibitor of two important cellular signaling pathways, PI3K and PLK, both of which are frequently over-active in cancer cells. By inhibiting the PI3K pathway, rigosertib promotes tumor cell apoptosis. By modulating PLK pathway activity in cancer cells, rigosertib inhibits cellular division, leading to chromosome disorganization and death in these cells.

Rigosertib IV for higher risk MDS

In February 2014, we announced top-line results of a Phase 3 trial of an intravenous formulation of rigosertib, or rigosertib IV, in higher-risk MDS patients who had progressed on, failed to respond to, or relapsed after prior therapy with hypomethylating agents, or HMAs. Although the results of this study showed numerical improvement in median overall survival in the rigosertib treated patients, the observed improvement in survival of 2.4 months was not sufficient to establish the required level of statistical significance and, therefore did not achieve the primary endpoint of the trial. We are, however, encouraged by an apparent improvement in median overall survival in various subgroups of patients in the trial, including patients who had progressed on or failed to respond to previous treatment with hypomethylating agents, referred to as primary HMA failure, patients in the Revised International Prognostic Scoring System (IPSS-R) Very High Risk category (IPSS-R calculates a risk score for MDS patients based on the severity of chromosome abnormalities, number of cytopenias, and percentage of bone marrow blasts observed at diagnosis) and patients with certain karyotype and point mutations. Notably, among the 184 patients with primary HMA failure, median overall survival was 8.6 months in the rigosertib arm (127 patients) compared to 5.3 months in the best supportive care arm (57 patients), with a hazard

Table of Contents

ratio of 0.69 and a p value of 0.040. Patients with karyotypic abnormalities, such as, monosomy 7 and trisomy 8 mutations also demonstrated a survival benefit with rigosertib therapy compared to best supportive care (monosomy 7: HR = 0.24, p = 0.0033; trisomy 8: HR = 0.34, p = 0.035). Additional analyses for bone marrow blast response showed a correlation between response at 4 or 12 weeks and overall survival. These findings are consistent with previous observations in Phase 2 studies. These and other subgroup data will be presented at the Annual American Society of Hematology (ASH) Meeting in December 2014 and may have important implications on the design of future clinical trials, as well as potential regulatory approval processes.

During the second and third quarter of this year, we have had continuing dialogue with the FDA to discuss the future development of rigosertib IV for higher-risk MDS patients. Based on this dialogue, we believe that we may be able to seek approval of rigosertib IV for higher risk MDS patients who had progressed on or failed to respond to previous treatment with HMAs based on another trial in this patient population.

In addition, together with Baxter, our commercialization partner in Europe, we have met with the European Medicines Agency (EMA) and several European national regulatory agencies to discuss the unmet medical need and appropriate regulatory pathway for approval of rigosertib in higher risk MDS patients within Europe.

Oral Rigosertib for lower-risk MDS

In December 2013, we presented data at the Annual ASH Meeting from our Phase 2 trial of an oral formulation of rigosertib in lower-risk MDS patients. Unlike higher-risk MDS patients who suffer from a shortfall in normal blood cells, or cytopenias, and elevated levels of cancer cells, or blasts in their bone marrow, lower-risk MDS patients suffer from cytopenias only, typically low levels of red blood cells, white blood cells and/or platelets. Thus, all MDS patients need interventions to improve their low blood counts, either by drug therapies or by transfusions. Phase 2 clinical data revealed the activity of single agent oral rigosertib in transfusion-dependent, lower-risk MDS patients and the potential of a DNA-based test performed on bone marrow cells of patients before they receive oral rigosertib to identify lower-risk MDS patients who are more likely to respond to oral rigosertib. We are currently enrolling an additional 20 lower-risk MDS patients in this Phase 2 trial to expand our data on the utility of this genomic DNA test for the identification of patients likely to respond to rigosertib. If we and Baxter mutually agree to progress the development of oral rigosertib in lower-risk MDS patients, we would be entitled to a milestone payment of $25 million under our development and license agreement with Baxter, and we would be required to use our commercially reasonable efforts to progress the development of rigosertib for this indication to a drug approval application in Europe.

In addition, recruitment is continuing in a second Phase 2 trial of oral rigosertib in lower-risk MDS patients to explore oral rigosertib dose and schedule optimization. Based on the anticipated timing of the DNA-based test and dosing optimization data, which we expect to receive over the next several months, we believe that a pivotal study of oral rigosertib in lower-risk MDS patients will not commence until the second half of 2015. Any such pivotal study will depend on the results of the ongoing Phase 2 trials and would be subject to regulatory discussions and guidance.

Oral rigosertib in combination with azacitidine in MDS and AML

We have completed the Phase 1 portion of a Phase 1/2 clinical trial of oral rigosertib in combination with azacitidine, and we are now enrolling patients in the Phase 2 portion at multiple sites in the U.S. and Europe. In the Phase 1 portion of the trial, the combination therapy was well

tolerated in the study population. The combination dosing schedule of oral rigosertib in the final cohort (two doses per day; 560mg in the morning and 280 mg in the afternoon) given during weeks one, two and three of a four-week treatment cycle) with the indicated dose of azacitidine (75 mg/m2 administered every day either subcutaneously or intravenously, given during week two of a four-week treatment cycle) has been selected for the Phase 2 portion of the trial. The Phase 2 portion of the trial has been designed to assess whether treatment with rigosertib, in combination with azacitidine, has a beneficial effect on bone marrow and peripheral blood blast cell counts and symptoms of disease progression in patients with MDS and AML. We expect to present results of the Phase 1 portion of this combination trial at the Annual ASH Meeting in December 2014.

Oral rigosertib in head and neck and other carcinomas

We announced in August 2014 results from a single-agent Phase 2 study of oral rigosertib in patients with second- and third-line head and neck cancers and other refractory cancers. In this trial, oral rigosertib was well tolerated in these advanced cancer patients. Stable disease, lasting up to nine months, was the best response observed in the head and neck cancer patients. One patient with lung cancer and one patient with anal cancer achieved stable disease. Based on these findings, we have concluded that there is not sufficient justification for further development of oral rigosertib as a single

Table of Contents

agent in these indications.

A Phase 1 study of oral rigosertib in combination with chemoradiotherapy (platinum plus radiation) has been put on hold as we focus our resources on development of rigosertib in MDS.

Briciclib

Our second clinical-stage product candidate is briciclib, a small molecule targeting an important intracellular regulatory protein, cyclin D1, which is often found at elevated levels in cancer cells. We have initiated a multi-center Phase 1 clinical trial testing IV briciclib in adult patients with advanced cancer and solid tumors. Upon completion of this ongoing Phase 1 trial, we will assess potential further development for briciclib.

Recilisib

Our third clinical-stage product candidate, recilisib, is being developed in collaboration with the U.S. Department of Defense for acute radiation syndromes. We have conducted animal studies and clinical trials of recilisib under the FDA s Animal Efficacy Rule, which permits marketing approval for new medical countermeasures for which human efficacy studies are not feasible or ethical, by relying on evidence from animal studies in appropriate animal models to support efficacy in humans. We have completed four Phase 1 trials to evaluate the safety and pharmacokinetics of recilisib in healthy human adult subjects using both subcutaneous and oral formulations. Ongoing studies of recilisib are being conducted with government funding, and we anticipate that any future development of recilisib beyond our ongoing studies would be conducted solely with government funding.

Preclinical Product Candidates

In addition to our three clinical-stage product candidates, we have several product candidates that target kinases, cellular metabolism or cell division in preclinical development. We intend to explore additional collaborations to further the development of these product candidates as we focus internally on our more advanced programs.

We were incorporated in Delaware in December 1998 and commenced operations in January 1999. Our operations to date have included our organization and staffing, business planning, raising capital, in-licensing technology from research institutions, identifying potential product candidates, developing product candidates and building strategic alliances, as well as undertaking non-clinical studies and clinical trials of our product candidates.

Since commencing operations we have dedicated a significant portion of our resources to our development efforts for our clinical-stage product candidates, particularly rigosertib. We incurred research and development expenses of $39.0 million and $38.1 million during the nine months

ended September 30, 2014 and 2013, respectively. We anticipate that a significant portion of our operating expenses will continue to be related to research and development as we continue to advance rigosertib and our other clinical-stage product candidates and, to a lesser extent, our preclinical programs. In July 2013, we completed an initial public offering (of our common stock, our IPO), from which we received net proceeds of $79.8 million. Prior to the consummation of the IPO, we funded our operations primarily through the sale of preferred stock amounting to $144.7 million, including $50.0 million invested by Baxter in 2012, as well as proceeds from the issuance of convertible debt and a stockholder loan amounting to $26.8 million in the aggregate, all of which was later converted into shares of our preferred stock, and upfront payments of $7.5 million from SymBio and $50.0 million from Baxter in connection with our collaboration agreements. We have also received an aggregate of $8.0 million from The Leukemia and Lymphoma Society, (LLS), under a funding agreement. As of September 30, 2014, we had $57.3 million in cash, cash equivalents and marketable securities.

Our net losses were $50.4 million and $47.9 million for the nine months ended September 30, 2014 and 2013, respectively. As of September 30, 2014, we had an accumulated deficit of $281.2 million. We expect to incur significant expenses and operating losses for the foreseeable future as we continue the development and clinical trials of, and seek regulatory approval for, our product candidates, even if milestones under our license and collaboration agreements are met. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses. We do not currently have an organization for the sales, marketing and distribution of pharmaceutical products. We may rely on licensing and co-promotion agreements with strategic or collaborative partners for the commercialization of our products in the United States and other territories. Alternatively, if we choose to build a commercial infrastructure to support marketing in the United States for any of our product candidates that achieve regulatory approval, such commercial infrastructure could be expected to include a targeted, oncology sales force supported by sales management, internal sales support, an internal marketing group and distribution support. To develop the appropriate commercial

Table of Contents

infrastructure internally, we would have to invest financial and management resources, some of which would have to be deployed prior to having any certainty about marketing approval.

Furthermore, we have and expect to continue to incur additional costs associated with operating as a public company. We will seek to fund our operations primarily through business development transactions, equity or debt financings or other sources. Financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed or on less favorable terms could have a material adverse effect on our financial condition and our ability to pursue our business strategy.

Critical Accounting Policies and Significant Judgments and Estimates

This management s discussion and analysis of our financial condition and results of operations is based on our interim unaudited consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our consolidated financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses, revenue recognition, deferred revenue and stock-based compensation. We base our estimates on historical experience, known trends and events and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe there have been no significant changes in our critical accounting policies as discussed in our annual report on Form 10-K filed with the SEC on March 20, 2014.

Results of Operations

Comparison of the Three Months Ended September 30, 2014 and 2013

	Three Months Ended September 30,		
	2014	**2013**	**Change**
Revenue	$ 114,000	$ 1,116,000	$ (1,002,000)
Operating expenses:			
General and administrative	3,116,000	5,927,000	2,811,000
Research and development	11,886,000	15,293,000	3,407,000
Total operating expenses	15,002,000	21,220,000	6,218,000
Loss from operations	(14,888,000)	(20,104,000)	5,216,000
Change in fair value of warrant liability	1,000	(31,000)	32,000
Other income (expense), net	(20,000)	46,000	(66,000)
Net loss before income taxes	(14,907,000)	(20,089,000)	5,182,000
Income taxes		432,000	432,000
Net loss	$ (14,907,000)	$ (20,521,000)	$ 5,614,000

Revenues

Revenues decreased by $1.0 million for the three months ended September 30, 2014 compared to the same period in 2013 primarily as a result of research and development revenue under the Baxter agreement being recognized on a proportional performance basis which was ongoing during the 2013 period but was completed during the first quarter of 2014.

General and administrative expenses

General and administrative expenses decreased by $2.8 million, or 47%, to $3.1 million for the three months ended September 30, 2014 from $5.9 million for the three months ended September 30, 2013. The decrease was primarily attributable to lower stock-based compensation expense of $2.4 million as a result of the high volume and value of fully-vested stock option grants at the time of IPO in 2013. Personnel and related expenses decreased $0.3 million as a result of

Table of Contents

general and administrative headcount decreasing to 15 at September 30, 2014 from 18 at September 30, 2013. Professional and consulting fees decreased by $0.1 million as a result of decreased pre-commercialization consulting during the 2014 period.

Research and development expenses

Research and development expenses decreased by $3.4 million, or 22%, to $11.9 million for the three months ended September 30, 2014 from $15.3 million for the three months ended September 30, 2013. This decrease was caused primarily by lower preclinical and clinical development costs of $3.7 million resulting from completion of the pancreatic program in December 2013 and reduced expenses in our higher-risk MDS program in the 2014 period. The decrease was also caused by personnel and related costs decreasing $0.2 million net of severance costs as research and development headcount fell to 38 at September 30, 2014 from 42 at September 30, 2013. Stock-based compensation expense was $0.1 million lower in the 2014 period as the net result of lower expense in the 2014 period compared to the 2013 period due to the number of fully-vested stock option grants in the 2013 period which did not occur in 2014, partially offset by an increase in expense related to the acceleration of vesting of stock options for terminated employees of $0.6 million in the 2014 period. These decreases were partially offset by an increase of $0.6 million in consulting costs in the 2014 period related to analyzing clinical trial results and preparing for meetings with regulatory authorities.

Change in fair value of warrant liability

The fair value of the warrant liability decreased by $1,000 for the three months ended September 30, 2014 compared to an increase of $32,000 for the three months ended September 30, 2013. The change in the fair value of the warrant liability in 2014 and 2013 was related to the revaluation of the outstanding warrants to fair value.

Other income (expense), net

Other income (expense), net, decreased by $66,000 for the three months ended September 30, 2014 compared to the three months ended September 30, 2013, due primarily to the impact of exchange rate fluctuations on advances to our German subsidiary, and due to less interest income in 2014 as a result of lower cash, cash equivalents, and marketable securities balances in the 2014 period.

Comparison of the Nine Months Ended September 30, 2014 and 2013

	Nine months ended September 30,		
	2014	**2013**	**Change**
Revenue	$ 686,000	$ 2,823,000	$ (2,137,000)
Operating expenses:			
General and administrative	12,033,000	12,390,000	357,000
Research and development	39,038,000	38,096,000	(942,000)
Total operating expenses	51,071,000	50,486,000	(585,000)

Loss from operations	(50,385,000)	(47,663,000)	(2,722,000)
Change in fair value of warrant liability	20,000	(19,000)	39,000
Other income (expense), net	(38,000)	186,000	(224,000)
Net loss before income taxes	(50,403,000)	(47,496,000)	(2,907,000)
Income taxes		432,000	432,000
Net loss	$ (50,403,000)	$ (47,928,000)	$ (2,475,000)

Revenues

Revenues decreased by $2.1 million for the nine months ended September 30, 2014 when compared to the same period in 2013 primarily as a result of research and development revenue under the Baxter agreement being recognized on a proportional performance basis which was ongoing during the 2013 period but was completed during the first quarter of 2014.

Table of Contents

General and administrative expenses

General and administrative expenses decreased by $0.4 million, or 3%, to $12.0 million for the nine months ended September 30, 2014 from $12.4 million for the nine months ended September 30, 2013. The decrease was primarily caused by a decrease in stock-based compensation expense of $2.6 million resulting from the switch from liability accounting to equity accounting in April 2013, as well as a decrease in the number and value of options vesting during the 2014 period compared to the 2013 period. The decrease in general and administrative expenses was partially offset by an increase in professional and consulting fees of $0.9 million as a result of increased pre-commercialization consulting early in the 2014 period. The increase was also attributable to higher insurance and public company costs of $0.9 million as a result of our IPO in July 2013. Personnel and related costs increased $0.4 million as a result of headcount additions throughout the 2013 period which were included for the entire 2014 period and bonus accruals for all employees in 2014, partially offset by reduced travel and entertainment costs in 2014.

Research and development expenses

Research and development expenses increased by $0.9 million, or 2%, to $39.0 million for the nine months ended September 30, 2014 from $38.1 million for the nine months ended September 30, 2013. This increase was caused primarily by higher manufacturing and development costs of $3.9 million, which were a result of increased validation activities, vendor qualification efforts, and formulation development activities in the 2014 period. This increase was also caused in part by $1.7 million higher consulting costs in the 2014 period related to analyzing clinical trial results and preparing for meetings with regulatory authorities. Personnel and related costs also increased by $1.2 million as a result of headcount additions throughout the 2013 period which were included for the entire 2014 period, severance costs relating to the reduction in force during the 2014 period, and bonus accruals for all employees in 2014. These increases were partially offset by a decrease in preclinical and clinical development costs of $5.8 million primarily resulting from completion of the pancreatic program in December 2013 and reduced expenses in our higher-risk MDS program in the 2014 period. Stock-based compensation expense was $0.1 million lower in the 2014 period as the net result of lower expense in the 2014 period compared to the 2013 period due to the switch from liability accounting to equity accounting in April 2013, as well as the number of fully-vested stock option grants in the 2013 period which did not occur in the 2014 period, partially offset by an increase in expense related to the acceleration of vesting of stock options for terminated employees of $0.6 million in the 2014 period.

Change in fair value of warrant liability

The fair value of the warrant liability decreased by $20,000 for the nine months ended September 30, 2014 compared to an increase of $19,000 for the nine months ended September 30, 2013. The change in the fair value of the warrant liability in 2014 and 2013 was related to the revaluation of the outstanding warrants to fair value.

Other income (expense), net

Other income (expense), net, decreased by $224,000 for the nine months ended September 30, 2014 compared to the nine months ended September 30, 2013, due primarily to the receipt in the 2013 period of proceeds from our insurance provider converting from a mutual to a stock insurance company, as well as the impact of exchange rate fluctuations on advances to our German subsidiary and less interest income in 2014

as a result of lower cash, cash equivalents, and marketable securities balances in the 2014 period.

Financial Condition

Total assets decreased $42.9 million, or approximately 41%, from $105.2 million at December 31, 2013 to $62.3 million at September 30, 2014. The decrease in total assets was due primarily to decreases in cash, cash equivalents and marketable securities. Total liabilities increased from $24.3 million at December 31, 2013 to $26.6 million at September 30, 2014, an increase of approximately $2.3 million, or 9%, primarily as a result of increases in accounts payable and accrued expenses and other current liabilities. Total stockholders equity decreased from $80.9 million at December 31, 2013 to $35.7 million at September 30, 2014, a decrease of $45.2 million, or approximately 56%, primarily due to a net loss of $50.4 million for the nine months ended September 30, 2014.

Table of Contents

Liquidity and Capital Resources

Since our inception, we have incurred net losses and experienced negative cash flows from our operations. We incurred net losses of $50.4 million and $47.9 million for the nine months ended September 30, 2014 and 2013, respectively. Our operating activities used $43.4 million and $44.3 million of net cash during the nine months ended September 30, 2014 and 2013, respectively. At September 30, 2014, we had an accumulated deficit of $281.2 million, working capital of $48.6 million, cash and cash equivalents of $42.3 million and marketable securities of $15.0 million. In July 2013, we completed our IPO, from which we received net proceeds of $79.8 million. Prior to the consummation of the IPO, we financed our operations principally through private placements of preferred stock and convertible debt. Through September 30, 2014, we had received gross proceeds of $171.5 million from the issuance of preferred stock and convertible debt. We have also financed our operations with the $57.5 million in upfront payments we received from Baxter and SymBio in 2012 and 2011, respectively.

Cash Flows

The following table summarizes our cash flows for the nine months ended September 30, 2014 and 2013:

	Nine Months Ended September 30,	
	2014	**2013**
Net cash (used in) provided by:		
Operating activities	$ (43,378,000)	$ (44,254,000)
Investing activities	24,778,000	(40,505,000)
Financing activities	948,000	79,862,000
Effect of foreign currency translation	(9,000)	(18,000)
Net (decrease) increase in cash and cash equivalents	$ (17,661,000)	$ (4,915,000)

Net cash used in operating activities

Net cash used in operating activities was $43.4 million for the nine months ended September 30, 2014. Net cash used in operations for the 2014 period consisted primarily of a net loss of $50.4 million, partially offset by $4.5 million of noncash items primarily related to stock-based compensation expense, depreciation, and change in the fair value of warrant liabilities. Changes in operating assets and liabilities resulted in a net increase in cash of $2.5 million. Significant changes in operating assets and liabilities included an increase in accounts payable and accrued expenses of $3.1 million, which was caused by the timing of invoices for clinical trial costs related to the ongoing trials and development of our product candidates and by higher accrued personnel-related expenses at September 30, 2014. Prepaid expenses and other current assets decreased $0.1 million, primarily due to the recognition of expense for prepaid upfront costs related to our clinical trials and continued development activities. The decrease of $0.7 million in deferred revenue was caused by the recognition of some unamortized portions of upfront payment under our collaboration agreement with SymBio.

Net cash used in operating activities was $44.3 million for the nine months ended September 30, 2013 and consisted primarily of a net loss of $47.9 million, partially offset by $7.3 million of noncash items primarily related to stock-based compensation expense, depreciation, and change in the fair value of warrant liabilities. Changes in operating assets and liabilities resulted in a net decrease in cash of $3.6 million. The significant items in the change in operating assets and liabilities included an increase in prepaid expenses and other current assets of $3.6 million due to the prepayment of upfront manufacturing costs, research and development and insurance. This was partially offset by a net increase in accounts

payable and accrued expenses of $2.8 million. The cash used in operating activities was increased further by a $2.8 million reduction in deferred revenue due to the recognition of the unamortized portions of upfront payments under our collaboration agreements with Baxter and SymBio in the amounts of $2.4 million and $0.4 million, respectively.

Net cash provided by (used in) investing activities

Net cash provided by investing activities for the nine months ended September 30, 2014 was $24.8 million, and consisted primarily of maturities of our marketable securities of $25.0 million, partially offset by purchases of fixed assets of $0.2 million. Net cash used in investing activities for the nine months ended September 30, 2013 was $40.5 million, and consisted of purchases of marketable securities of $40.0 million and purchases of fixed assets of $0.5 million.

Table of Contents

Net cash provided by financing activities

Net cash provided by financing activities for nine months ended September 30, 2014 was $0.9 million and resulted from the proceeds received from the exercise of stock options. Net cash provided by financing activities for the nine months ended September 30, 2013 was $79.9 million resulting from the proceeds from our initial public offering.

Operating and Capital Expenditure Requirements

We have not achieved profitability since our inception and we expect to continue to incur net losses for the foreseeable future. Our cash expenditures may increase in the near term as we fund our clinical trials of rigosertib, as well as our clinical trials of our other earlier-stage product candidates and continuing non-clinical activities.

On July 30, 2013, we completed our IPO. We received net proceeds of $79.8 million from the sale, net of underwriting discounts and commissions and other offering expenses.

As a publicly traded company, we have incurred and will continue to incur significant legal, accounting and other expenses that we were not required to incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, as well as rules adopted by the SEC and the NASDAQ Stock Market, require public companies to implement specified corporate governance practices that were not applicable to us as a private company. These rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. We estimate that we incur approximately $2.0 million to $3.0 million of incremental costs per year associated with being a publicly traded company.

We believe that our existing capital resources will likely not be sufficient to fund our operations, our ongoing trials, and focused development plan for rigosertib in higher-risk and lower-risk MDS for the next 12 months. We will continue to make adjustments to our operations as our clinical trials and development plans progress. However, we anticipate that we will need additional funds in the future to support our operations and to complete any future clinical trials.

In order to meet our additional financing requirements, we may pursue various business development activities and seek to sell securities, including equity or convertible debt securities that may result in dilution to our stockholders. If we raise additional funds through the issuance of preferred stock or convertible debt securities, these securities could have rights senior to those of our common stock and could contain covenants that restrict our operations. There can be no assurance that we will be able to obtain additional equity or debt financing on terms acceptable to us, if at all. Further, the achievement of milestones and receipt from Baxter and SymBio of milestone payments and royalties, even if rigosertib is approved for commercial use in Baxter s and SymBio s licensed territories, are not assured. Our failure to obtain sufficient funds on acceptable terms when needed could have a negative impact on our business, results of operations, and financial condition. Our future capital requirements will depend on many factors, including:

- the results of our ongoing and future nonclinical studies and clinical trials;

- the timing of, and the costs involved in, obtaining regulatory approvals for future clinical trials and commercialization of our product candidates or any future product candidates;

- whether Baxter and SymBio continue to pursue or terminate our collaboration arrangements for the development and commercialization of rigosertib in their licensed territories;

- the amount and timing of any milestone payments or royalties we may receive pursuant to our collaboration arrangements;

- the number and characteristics of any other product candidates we develop or may acquire;

- the scope, progress, results and costs of researching and developing our product candidates or any future product candidates, and conducting preclinical and clinical trials;

- the cost of commercialization activities if any future product candidates are approved for sale, including marketing, sales and distribution costs;

- the cost of manufacturing rigosertib and our other product candidates and any products that may achieve regulatory approval;

- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;

- any product liability or other lawsuits related to our products;

Table of Contents

- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or royalties on, future approved products, if any.

If we are unable to successfully raise sufficient additional capital, through future debt or equity financings, product sales, or through strategic and collaborative ventures with third parties, we will not have sufficient cash flows and liquidity to fund our planned business operations. In that event, we may be forced to limit many, if not all, of our programs and consider other means of creating value for our stockholders, such as licensing to others the development and commercialization of products that we consider valuable and would otherwise likely develop ourselves. If we are unable to raise the necessary capital, we may be forced to curtail all of our activities and, ultimately, potentially cease operations. Even if we are able to raise additional capital, such financings may only be available on unattractive terms, or could result in significant dilution of stockholders interests. The condensed consolidated financial statements included in this quarterly report do not include any adjustments relating to recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should we be unable to continue in existence.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by applicable regulations promulgated by the SEC.

JOBS Act

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

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business. These market risks are principally limited to interest rate fluctuations. There were no material changes in the Company s market risk exposures from December 31, 2013 to September 30, 2014.

Interest Rate Risk

We had cash, cash equivalents and marketable securities of $57.3 million and $100.0 million at September 30, 2014 and December 31, 2013, respectively, consisting primarily of funds in cash, money market accounts and U.S. Treasury obligations. The primary objective of our investment activities is to preserve principal and liquidity while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of our investment portfolio, we do not believe an immediate 10% increase or decrease in interest rates would have a material effect on the fair market value of our portfolio, and accordingly we do not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates.

Foreign Currency Exchange Risk

We conduct certain clinical and regulatory business in several foreign countries, including countries in Europe. We are therefore subject to fluctuations in foreign currency rates in connection with such operations. We do not hedge our foreign currency exchange rate risk. To date, we have not experienced any material effects from foreign currency changes on these operations.

Table of Contents

Inflation Risk

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our business, financial condition or results of operations during the nine months ended September 30, 2014 and 2013.

Item 4. Controls and Procedures

Managements Evaluation of our Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2014. The term disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (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. Based on the evaluation of our disclosure controls and procedures as of September 30, 2014, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

During the preparation of our consolidated financial statements as of and for the year ended December 31, 2012, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. The material weakness identified was that we did not have sufficient financial reporting and accounting staff with appropriate training in GAAP and SEC rules and regulations with respect to financial reporting. As such, our internal control over financial reporting was not designed or operating effectively, and as a result there were adjustments required in connection with closing our books and records and preparing our 2012 consolidated financial statements.

To remediate this material weakness, prior to the quarter ended September 30, 2014, we expanded our staff, hiring a Chief Financial Officer, a Director of Financial Reporting and a Vice President of Financial Planning and Accounting, each with prior public company financial reporting experience, as well as additional finance and accounting personnel with appropriate training to build our financial management and reporting infrastructure. Prior to and during the quarter ended September 30, 2014, we have initiated processes to further develop and document our accounting policies and financial reporting procedures and to implement additional internal controls.

Neither we nor our independent registered public accounting firm has performed an evaluation of the effectiveness of our internal control over financial reporting during any period in accordance with the provisions of the Sarbanes-Oxley Act. Our management will be required to assess

the effectiveness of our internal control over financial reporting as of December 31, 2014. However, for as long as we remain an emerging growth company as defined in the JOBS Act, we intend to utilize the provision exempting us from the requirement that our independent registered public accounting firm provide an attestation on the effectiveness of our internal control over financial reporting.

Except for the remediation efforts discussed above, there was no change in our internal control over financial reporting that occurred during the quarter ended September 30, 2014 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II OTHER INFORMATION

Item 1. Legal Proceedings

We are not party to any pending material legal proceedings and are not aware of any such proceedings contemplated by governmental authorities.

Item 1A. Risk Factors

The following risk factors should be read in conjunction with the Risk Factors previously disclosed in our annual report on Form 10-K filed with the SEC on March 20, 2014.

We are likely to require additional capital to fund our operations and if we fail to obtain necessary financing, we may be unable to complete the development and potential commercialization of our product candidates.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to spend substantial amounts to advance the clinical development of our product candidates and launch and commercialize any product candidates for which we receive regulatory approval, including potentially building our own commercial organization. We believe that our existing capital resources will likely not be sufficient to fund our operations, our ongoing trials, and focused development plan for rigosertib in higher-risk and lower-risk MDS for the next 12 months. Accordingly, we anticipate that we will need additional funds in the future to support our operations and for the further development and potential commercialization of our product candidates.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this report and in the Risk Factors section of our annual report on Form 10-K filed with the SEC on March 20, 2014. We have based our forecast on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of clinical trials for our product candidates and future product candidates, including our Phase 2 and Phase 3 clinical trials for rigosertib, and our Phase 1 trials for, briciclib and recilisib;

- the clinical development plans we establish for these and other product candidates;

- the achievement of milestones and our obligation to make royalty payments to Temple, LLS, or any other future product candidate licensor, if any, under our in-licensing agreements;

- the number and characteristics of product candidates that we discover or in-license and develop;

- the outcome, timing and cost of regulatory review by the FDA and comparable foreign regulatory authorities, including the potential for the FDA or comparable foreign regulatory authorities to require that we perform more studies than those that we currently expect;

- the costs of filing, prosecuting, defending and enforcing any patent claims and maintaining and enforcing other intellectual property rights;

- the effect of competing technological and market developments;

- the costs and timing of the implementation of commercial-scale outsourced manufacturing activities; and

- the costs and timing of establishing sales, marketing and distribution capabilities for any product candidates for which we may receive regulatory approval in territories where we choose to commercialize products on our own.

If we are unable to expand our operations or otherwise capitalize on our business opportunities due to a lack of capital, our ability to become profitable will be compromised.

Table of Contents

We have entered into collaboration agreements with SymBio Pharmaceuticals Limited and Baxter Healthcare SA for rigosertib development and commercialization in certain territories and we may elect to enter into additional licensing or collaboration agreements to partner rigosertib in territories currently retained by us. Our dependence on such relationships may adversely affect our business.

Because we have limited resources, we seek to enter into, and in the past we have entered into, collaboration agreements with other pharmaceutical companies and may elect to enter into more of these agreements in the future. In July 2011, we entered into a license agreement with SymBio Pharmaceuticals Limited, or SymBio, as subsequently amended, granting an exclusive, royalty-bearing license for the development and commercialization of rigosertib in Japan and Korea. In September 2012, we entered into a development and license agreement with Baxter Healthcare SA, or Baxter, a subsidiary of Baxter International Inc., granting an exclusive, royalty-bearing license for the development and commercialization of rigosertib in specified countries comprising most of Europe. In December 2012, we also entered into a collaboration agreement with GVK Biosciences Private Limited for the further development of two of our preclinical oncology programs. Any failure by our partners to perform their obligations or any decision by our partners to terminate these agreements would terminate the funding we may receive under the relevant collaboration agreement and could negatively impact our ability to successfully develop, obtain regulatory approvals for and commercialize the applicable product candidate. In addition, any decision by our partners to terminate these agreements could also damage our reputation and negatively impact our ability to obtain financing from other sources.

We may not achieve the milestones set forth in our collaboration agreements, or may disagree with our collaboration partners as to whether certain milestones have been met. Any such failure or disagreement would negatively impact our potential funding sources if we are unable to receive the contemplated milestone payments.

Our commercialization strategy for rigosertib in territories currently retained by us may depend on our ability to enter into agreements with collaborators to obtain assistance and funding for the development and potential commercialization of rigosertib in those territories. Despite our efforts, we may be unable to secure additional collaborative licensing or other arrangements that are necessary for us to further develop and commercialize rigosertib. Supporting diligence activities conducted by potential collaborators and negotiating the financial and other terms of a collaboration agreement are long and complex processes with uncertain results. Even if we are successful in entering into one or more collaboration agreements, collaborations may involve greater uncertainty for us, as we have less control over certain aspects of our collaborative programs than we do over our proprietary development and commercialization programs. We may determine that continuing a collaboration under the terms provided is not in our best interest, and we may terminate the collaboration. Our collaborators could delay or terminate their agreements, and as a result rigosertib may never be successfully commercialized.

Further, our future collaborators may develop alternative products or pursue alternative technologies either on their own or in collaboration with others, including our competitors, and the priorities or focus of our collaborators may shift such that rigosertib receives less attention or resources than we would like, or they may be terminated altogether. Any such actions by our collaborators may adversely affect our business prospects and ability to earn revenues. In addition, we could have disputes with our current or future collaborators, such as the interpretation of terms in our agreements. Any such disagreements could lead to delays in the development or commercialization of rigosertib or could result in time-consuming and expensive litigation or arbitration, which may not be resolved in our favor.

With respect to our programs that are currently not the subject of collaborations, we may enter into agreements with collaborators to share in the burden of conducting clinical trials, manufacturing and marketing these product candidates. In addition, our ability to develop additional proprietary compounds may depend on our ability to establish and maintain licensing arrangements or other collaborative arrangements with the holders of proprietary rights to such compounds. We may not be able to establish such arrangements on favorable terms or at all, and our future collaborative arrangements may not be successful.

37

Table of Contents

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

Use of Proceeds

On July 30, 2013, the Company completed its initial public offering of 5,941,667 shares of the Company s common stock, at a price of $15.00 per share, including 775,000 shares of common stock issued upon the exercise in full by the underwriters of their option to purchase additional shares at the same price to cover over-allotments, pursuant to the Company s Registration Statement on Form S-1 (File No. 333-189358) which was declared effective on July 24, 2013. The Company received net proceeds of $79,811,000 from the sale, net of underwriting discounts and commissions and other offering expenses. The offer and sale of all of the shares in the offering were registered under the Securities Act in accordance with the Company s final prospectus filed on July 25, 2013 with the SEC pursuant to Rule 424(b)(4) of the Securities Act.

We have invested the net proceeds from the offering in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments such as U.S. government securities and money market funds. There has been no material change in our planned use of the net proceeds from the offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act on July 25, 2013. We have broad discretion in the use of the net proceeds from our initial public offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our stock.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

A list of the exhibits filed as part of this Quarterly Report on Form 10-Q is set forth on the Exhibit Index, which is incorporated herein by reference.

Table of Contents

SIGNATURES

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

ONCONOVA THERAPEUTICS, INC.

Dated: November 14, 2014

/s/ RAMESH KUMAR, Ph.D.
Ramesh Kumar, Ph.D.
President and Chief Executive Officer
(Principal Executive Officer)

Dated: November 14, 2014

/s/ AJAY BANSAL
Ajay Bansal
Chief Financial Officer
(Principal Financial Officer)

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description
10.1	Sales Agreement dated October 8, 2014 by and between Onconova Therapeutics, Inc., and Cantor Fitzgerald & Co., incorporated herein by reference to Exhibit 1.1 to the Registration Statement of the Company on Form S-3 filed with the Securities and Exchange Commission on October 8, 2014
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document