Regulus Therapeutics Inc.
Form 10-Q
November 19, 2012
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2012

or

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

FOR THE TRANSITION PERIOD FROM TO

Commission file number: 001-35670

Regulus Therapeutics Inc.

(Exact name of registrant as specified in its charter)

Delaware	**26-4738379**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
3545 John Hopkins Ct., Suite 210, San Diego CA	**92121**
(Address of Principal Executive Offices)	**(Zip Code)**

858-202-6300

(Registrant s Telephone Number, Including Area Code)

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

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

Indicate by check mark whether 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 , smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer x (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of November 16, 2012, the registrant had 35,829,029 shares of Common Stock ($0.001 par value) outstanding.

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REGULUS THERAPEUTICS INC.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Regulus Therapeutics Inc.

Condensed Balance Sheets

(In thousands, except share and par value amounts)

	September 30, 2012 (Unaudited)	December 31, 2011
Assets		
Current assets:		
Cash and cash equivalents	$ 17,426	$ 9,175
Short-term investments	13,467	28,969
Contract receivable	3,000	
Prepaids and other current assets	466	522
Total current assets	34,359	38,666
Property and equipment, net	3,144	3,110
Intangibles, net	1,124	980
Other assets	2,096	125
Total assets	$ 40,723	$ 42,881
Liabilities and stockholders deficit		
Current liabilities:		
Accounts payable	$ 649	$ 501
Accrued payroll	973	671
Accrued expenses	1,077	360
Income taxes payable		206
Current portion of other long-term obligations	115	377
Current portion of deferred revenue	10,593	10,735
Total current liabilities	13,407	12,850
Convertible notes payable	10,000	10,000
Convertible notes payable, at fair value	7,069	
Accrued interest on convertible notes payable	1,227	963
Other long-term obligations, less current portion	374	438
Deferred revenue, less current portion	16,602	16,987
Deferred rent	501	446
Total liabilities	49,180	41,684
Series A convertible preferred stock, $0.001 par value; 25,000,000 shares authorized, 24,900,000 shares issued and outstanding at September 30, 2012 (unaudited) and December 31, 2011; aggregate liquidation preference of $49,800 at September 30, 2012 (unaudited) and December 31, 2011	32,691	32,691
Series B convertible preferred stock, $0.001 par value; 2,500,000 shares authorized 2,499,999 shares issued and outstanding at September 30, 2012 (unaudited) and December 31, 2011; aggregate liquidation preference of $10,000 at September 30, 2012 (unaudited) and December 31, 2011	10,000	10,000
Stockholders deficit:		

Common stock, $0.001 par value; 38,600,000 shares authorized, 425,092 and 153,184 shares issued and outstanding at September 30, 2012 (unaudited) and December 31, 2011, respectively		
Additional paid-in capital	2,418	1,584
Accumulated other comprehensive loss	(23)	(67)
Accumulated deficit	(53,543)	(43,011)
Total stockholders deficit	(51,148)	(41,494)
Total liabilities and stockholders deficit	$ 40,723	$ 42,881

See accompanying notes.

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Regulus Therapeutics Inc.

Condensed Statements of Operations and Comprehensive Loss

(In thousands, except share and per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
	(Unaudited)			
Revenues:				
Revenue under strategic alliances	$ 2,809	$ 3,809	$ 9,462	$ 10,426
Total revenues	2,809	3,809	9,462	10,426
Operating expenses:				
Research and development	5,248	3,875	14,735	12,823
General and administrative	1,093	907	2,998	2,864
Total operating expenses	6,341	4,782	17,733	15,687
Loss from operations	(3,532)	(973)	(8,271)	(5,261)
Other income (expense):				
Interest income	20	28	74	96
Interest expense	(110)	(97)	(294)	(293)
Loss on extinguishment of debt	(1,738)		(1,738)	
Loss from valuation of convertible note payable	(331)		(331)	
Other income		1		2
Loss before income taxes	(5,691)	(1,041)	(10,560)	(5,456)
Income tax (benefit) expense	(6)	4	(28)	131
Net loss	$ (5,685)	$ (1,045)	$ (10,532)	$ (5,587)
Other comprehensive loss:				
Unrealized gain (loss) on short-term investments, net	10	(76)	44	(95)
Comprehensive loss	$ (5,675)	$ (1,121)	$ (10,488)	$ (5,682)
Net loss per share, basic and diluted	$ (15.98)	$ (11.68)	$ (41.03)	$ (76.97)
Shares used to compute basic and diluted net loss per share	355,735	89,438	256,682	72,588

See accompanying notes.

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Regulus Therapeutics Inc.

Condensed Statements of Cash Flows

(In thousands)

	Nine Months Ended September 30,	
	2012	2011
	(Unaudited)	
Operating activities		
Net loss	$ (10,532)	$ (5,587)
Adjustments to reconcile net loss to net cash (used in) operating activities		
Depreciation and amortization expense	741	656
Amortization of premium on investments, net	311	401
Gain on investments		(1)
Stock-based compensation	732	609
Loss on extinguishment of debt	1,738	
Loss from valuation of convertible note payable	331	
Change in operating assets and liabilities:		
Contract receivable	(3,000)	
Prepaids and other assets	56	(117)
Accounts payable	148	(609)
Accrued payroll	302	(318)
Accrued expenses	44	(258)
Accrued interest	263	242
Payables to related parties		81
Income taxes payable	(234)	130
Deferred revenue	(527)	(4,910)
Deferred rent	55	103
Net cash used in operating activities	(9,572)	(9,578)
Investing activities		
Purchases of short-term investments	(9,287)	(44,584)
Maturities and sales of short-term investments	24,550	44,140
Purchases of property and equipment	(724)	(237)
Acquisition of patents	(185)	(122)
Net cash provided by (used in) investing activities	14,354	(803)
Financing activities		
Principal payments on other long-term obligations	(326)	(307)
Proceeds from issuance of convertible notes payable	5,000	
Proceeds from exercise of common stock options	102	38
Costs paid in connection with initial public offering	(1,307)	
Net cash provided by (used in) financing activities	3,469	(269)
Net increase (decrease) in cash and cash equivalents	8,251	(10,650)
Cash and cash equivalents at beginning of period	9,175	21,268

Cash and cash equivalents at end of period	$ 17,426	$ 10,618
Supplemental disclosure of cash flow information		
Interest paid	$ 32	$ 51
Income taxes paid	$ 207	$
Supplemental disclosure of non-cash investing and financing activities		
Amounts accrued for property and equipment, net	$	$ (11)
Amounts accrued for patent expenditures, net	$ 10	$

See accompanying notes.

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Regulus Therapeutics Inc.

NOTES TO CONDENSED FINANCIAL STATEMENTS

(Unaudited)

1. The Business and Summary of Significant Accounting Policies

Description of Business

Regulus Therapeutics Inc. was originally formed as a Delaware limited liability company under the name Regulus Therapeutics LLC on September 6, 2007, and was converted to a Delaware corporation on January 2, 2009. As used in this report, unless the context suggests otherwise, the Company, our, us and we means Regulus Therapeutics Inc.

We are a biopharmaceutical company focused on discovering and developing first-in-class drugs that target *micro*RNAs to treat a broad range of diseases. We are using our *micro*RNA product platform to develop chemically modified, single-stranded oligonucleotides that we call anti-miRs. We use these anti-miRs to modulate *micro*RNAs and by doing so return diseased cells to their healthy state.

Basis of Presentation

We have prepared the accompanying unaudited condensed financial statements in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and disclosures required by generally accepted accounting principles for complete financial statements. In the opinion of our management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the nine months ended September 30, 2012 are not necessarily indicative of the results that may be expected for the entire year. These financial statements should be read in conjunction with the audited financial statements and notes thereto for the year ended December 31, 2011 included in our final prospectus filed with the Securities and Exchange Commission on October 5, 2012 relating to our Registration Statement on Form S1/A (File No. 333-183384) for our initial public offering (IPO).

On September 7, 2012, our board of directors approved a one-for-two reverse stock split of our common stock. The accompanying financial statements and notes to the financial statements give retroactive effect to the reverse split for all periods presented.

Use of Estimates

Our unaudited condensed financial statements are prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP). The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our financial statements and accompanying notes. Our most significant estimates relate to revenue recognition and stock-based compensation. Although these estimates are based on our knowledge of current events and actions we may undertake in the future, actual results may ultimately differ from these estimates and assumptions.

Revenue Recognition

Our revenues generally consist of upfront payments for licenses or options to obtain licenses in the future, research and development funding and milestone payments under strategic alliance agreements, as well as funding received under government grants. We recognize revenues when all four of the following criteria are met: (1) persuasive evidence that an arrangement exists; (2) delivery of the products and/or services has occurred; (3) the selling price is fixed or determinable; and (4) collectibility is reasonably assured.

Milestones

In January 2011, we adopted new authoritative guidance on revenue recognition for milestone payments related to agreements under which we have continuing performance obligations. We recognize revenue from milestone payments when earned, provided that (i) the milestone event is substantive in that it can only be achieved based in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance and its achievability was not reasonably assured at the inception of the agreement, (ii) we do not have ongoing performance obligations related to the achievement of the milestone and (iii) it would result in the receipt of additional payments. A milestone

payment is considered substantive if all of the following conditions are met: (i) the milestone payment is non-refundable; (ii) achievement of the milestone was not reasonably assured at the inception of the arrangement; (iii) substantive effort is involved to achieve the milestone; and (iv) the amount of the milestone payments appears reasonable in relation to the effort expended, the other milestones in the arrangement and the related risk associated with the achievement of the milestone. Any amounts received under the agreements in advance of performance, if deemed substantive, are recorded as deferred revenue and recognized as revenue as we complete our performance obligations. The adoption of this guidance did not materially change our previous method for recognizing milestone payments.

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Strategic Alliance Agreements entered into or materially modified after December 31, 2010

In January 2011, we adopted new authoritative guidance for multiple element arrangements. The guidance, which applies to multiple element agreements entered into or materially modified after December 31, 2010 amends the criteria for separating and allocating consideration in a multiple element agreement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. Deliverables under the agreement will be accounted for as separate units of accounting provided that (i) a delivered item has value to the customer on a stand-alone basis; and (ii) if the agreement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. The allocation of consideration amongst the deliverables under the agreement is derived using a best estimate of selling price if vendor-specific objective evidence and third-party evidence of fair value is not available. We did not enter into any significant multiple element agreements or materially modify any existing multiple element agreements during 2011. In June 2012, we materially modified our strategic alliance agreement with GlaxoSmithKline plc (GSK) and in July 2012, we materially modified our strategic alliance agreement with Sanofi. In August 2012, we entered into new collaboration and license agreements with both AstraZeneca AB (AstraZeneca) and Biogen Idec MA Inc. (Biogen Idec). For additional information see Note 7.

Deferred Revenue

Amounts received prior to satisfying the above revenue recognition criteria are recorded as deferred revenue in the accompanying balance sheets. Amounts not expected to be recognized within the next 12 months are classified as non-current deferred revenue.

Stock-Based Compensation

We account for stock-based compensation expense related to stock options granted to employees and members of our board of directors by estimating the fair value of each stock option on the date of grant using the Black-Scholes model. We recognize stock-based compensation expense using the accelerated multiple-option approach. Under the accelerated multiple-option approach (also known as the graded-vesting method), we recognize compensation expense over the requisite service period for each separately vesting tranche of the award as though the award was in substance multiple awards, resulting in accelerated expense recognition over the vesting period.

We account for stock options granted to non-employees, which primarily consist of members of our scientific advisory board, using the fair value approach. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms.

The following table summarizes the weighted average assumptions we used in our Black-Scholes calculations:

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
Employee Stock Options:				
Risk-free interest rate	*	1.2%	1.1%	2.4%
Expected dividend yield	*	0.0%	0.0%	0.0%
Expected volatility	*	77.6%	71.0%	72.8%
Expected term (years)	*	6.1	6.1	6.1

* No stock options were granted during the three months ended September 30, 2012.

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The following table summarizes the allocation of our stock compensation expense (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
Research and development	$ 278	$ 127	$ 461	$ 406
General and administrative	136	69	271	203
Total	$ 414	$ 196	$ 732	$ 609

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is calculated by dividing the net loss by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. Dilutive common stock equivalents are comprised of convertible preferred stock and options outstanding under our stock option plan. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to our net loss position.

Potentially dilutive securities not included in the calculation of diluted net loss per share because to do so would be anti-dilutive are as follows (in common equivalent shares):

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
Convertible preferred stock outstanding	13,699,999	13,699,999	13,699,999	13,699,999
Common stock options	2,845,675	2,028,853	2,823,463	2,164,285
Total	16,545,674	15,728,852	16,523,462	15,864,284

In addition to the potentially dilutive securities noted above, as of September 30, 2012 we had $15.0 million principal amount of outstanding convertible notes payable that were potentially convertible into common stock upon the occurrence of various future stock financing events at prices that were not determinable until the occurrence of the future events. As such, we have excluded these convertible notes payable from the table above. Upon the completion of our IPO in October 2012, $10.0 million principal amount of the convertible notes (and related accrued interest) were converted into 2,703,269 shares of common stock. See Note 4 for information regarding the terms of the $5.0 million of convertible notes payable that became convertible into common stock upon, and remain outstanding after, our IPO.

Other Assets

Deferred IPO costs totaling $2.0 million are included in other assets at September 30, 2012. These costs represent legal, accounting and other direct costs related to our efforts to raise capital through a public sale of our common stock. We incurred no IPO costs prior to 2012. IPO costs were deferred until the completion of the IPO in October 2012, and such costs will be reclassified to additional paid-in capital as a reduction of the IPO proceeds.

Fair Value Option

Applicable accounting policies permit entities to choose, at specified election dates, to measure specified items at fair value if the decision about the election is: 1) applied instrument by instrument, 2) irrevocable, and 3) applied to an entire instrument. In addition, an entity may choose to elect the fair value option only at the date of an event (i.e., significant modifications of debt, as defined) that requires an eligible item to be measured at fair value at the time of the event but does not require fair value measurement at each reporting date after that.

In July 2012, we accounted for the amended and restated note issued to GSK in February 2010 as a debt extinguishment of the original note. We elected to measure the amended note under the fair value option. The difference between the carrying value of the original note and the fair value of the amended note was recorded as a loss on extinguishment of debt to non-operating earnings. Thereafter, any change to the fair value of the amended note will be recorded as gain (loss) from valuation of convertible notes payable to non-operating earnings.

Recent Accounting Pronouncements

In September 2011, a new accounting standard was issued that changed the disclosure requirements for the presentation of other comprehensive income (OCI) in the financial statements, including the elimination of the option to present OCI in our statements of stockholders deficit. We have elected to present OCI and its components for both interim and annual periods in a single statement which is our statement of operations and comprehensive loss. This standard was adopted as of January 1, 2012 and the retrospective application of this standard did not have a material impact on our financial statements.

2. Investments

We invest our excess cash in commercial paper and debt instruments of financial institutions, corporations, U.S. government-sponsored agencies, and the U.S. Treasury. As of September 30, 2012, our short-term investments had a weighted average maturity of less than one year.

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The following tables summarize our short-term investments (in thousands):

As of September 30, 2012	Maturity (in years)	Amortized cost	Unrealized Gains	Unrealized Losses	Estimated fair value
Certificates of deposit	1 or less	$ 1,640	$	$	$ 1,640
Commercial paper	1 or less	2,347			2,347
Corporate debt securities	1 or less	7,974	5	(1)	7,978
Debt securities of U.S. government-sponsored agencies	1 or less	1,501	1		1,502
Total		$ 13,462	$ 6	$ (1)	$ 13,467

As of December 31, 2011	Maturity (in years)	Amortized cost	Unrealized Gains	Unrealized Losses	Estimated fair value
Certificates of deposit	2 or less	$ 3,519	$	$	$ 3,519
Commercial paper	1 or less	4,599		(1)	4,598
Corporate debt securities	2 or less	13,139	5	(74)	13,070
Debt securities of U.S. government-sponsored agencies	1 or less	7,779	3		7,782
Total		$ 29,036	$ 8	$ (75)	$ 28,969

3. Fair Value Measurements

Applicable accounting guidance defines fair value 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 as of the measurement date. Additionally, the guidance provides an established hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in valuing the asset or liability and are developed based on market data obtained from independent sources. Unobservable inputs are inputs that reflect our assumptions about the factors that market participants would use in valuing the asset or liability. There are three levels of inputs that may be used to measure fair value:

Level 1 includes financial instruments for which quoted market prices for identical instruments are available in active markets.

Level 2 includes financial instruments for which there are inputs other than quoted prices included within Level 1 that are observable for the instrument such as quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets with insufficient volume or infrequent transactions (less active markets) or model-driven valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3 includes financial instruments for which fair value is derived from valuation techniques in which one or more significant inputs are unobservable, including management s own assumptions.

The following table presents our fair value hierarchy for assets and liabilities measured at fair value on a recurring basis at September 30, 2012 and December 31, 2011 (in thousands):

	Fair value as of September 30, 2012			
	Total	Level 1	Level 2	Level 3
Cash equivalents	$ 15,625	$ 15,625	$	$
Certificates of deposit	1,640		1,640	
Commercial paper	2,347		2,347	
Corporate debt securities	7,978		7,978	
Debt securities of U.S. government-sponsored agencies	1,502		1,502	
Total assets	$ 29,092	$ 15,625	$ 13,467	$

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Balance at December 31, 2011	$
Transfer into Level 3 from election of fair value option	6,738
Change in estimated fair value of convertible notes payable	331
Balance at September 30, 2012	$ 7,069

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	Fair value as of September 30, 2012			
	Total	Level 1	Level 2	Level 3
Convertible notes payable	$ 7,069	$	$	$ 7,069
Total liabilities	$ 7,069	$	$	$ 7,069

	Fair value as of December 31, 2011			
	Total	Level 1	Level 2	Level 3
Cash equivalents	$ 8,078	$ 7,478	$ 600	$
Certificates of deposit	3,519		3,519	
Commercial paper	4,598		4,598	
Corporate debt securities	13,070		13,070	
Debt securities of U.S. government-sponsored agencies	7,782		7,782	
Total assets	$ 37,047	$ 7,478	$ 29,569	$

We obtain pricing information for our assets measured at fair value from quoted market prices or quotes from brokers/dealers. We generally determine the fair value of our investment securities using standard observable inputs, including reported trades, broker/dealer quotes, bids and/or offers.

On July 27, 2012, we amended and restated our $5.0 million convertible promissory note originally issued in February 2010 to GSK (2010 GSK note), which resulted in a debt extinguishment for accounting purposes. Concurrent with the debt extinguishment, we elected the fair value option for the 2010 GSK note. We used a third party valuation firm to value the 2010 GSK note at the extinguishment date and again at September 30, 2012. Based on the valuation, we recorded a $1.7 million loss on extinguishment of debt (the difference between the original $5.0 million carrying value and the fair value) on the Condensed Statements of Operations and Comprehensive Loss. In future periods, the fair value of the 2010 GSK note will be recorded on a quarterly basis with changes in fair value recorded in non-operating earnings. For the three and nine months ended September 30, 2012, we recorded a loss from valuation of convertible notes payable of $331,000 on the Condensed Statements of Operations and Comprehensive Loss.

The third-party valuation firm used an income approach in the form of a convertible bond valuation model to value the note. The convertible bond model considered the debt and option characteristics of the note. The key inputs to the model as of July 27, 2012 and September 30, 2012 were volatility (75%), risk-free rate (0.15%-0.71% and 0.15%-0.67%, respectively), and credit spread (11.0% and 10.5%, respectively). The absolute stock and strike price were not key inputs because upon an IPO, the conversion option is assumed to be set at-the-money. The estimated fair value of the note is based on the probability weighted average of an IPO and a Non-IPO scenario. The volatility inputs were based on historical and implied volatility of peer companies. Peer companies were consistent with those used previously in our 409A analyses. The risk-free rate inputs were based on the yield of US Treasury Strips as of each date. The credit spread inputs were based on a creditworthiness analysis of the Company and the guarantors of the February 2010 convertible promissory note, as applicable, and market rates for comparable straight debt instruments.

At September 30, 2012, the fair value of the note is classified as Convertible notes payable, at fair value on the Condensed Balance Sheet at $7.1 million ($5.0 million principal).

4. Convertible Notes Payable

In July 2012, we amended and restated the convertible promissory notes issued to GSK in April 2008 and February 2010 to provide, among other things, that (i) in the case of the $5.0 million note originally issued in April 2008, the principal amount plus interest under the note would, upon completion of our initial public offering in which we receive a minimum level of proceeds from new investors or that results in certain of our current stockholders together owning less than 50% of our voting securities, automatically convert into shares of our common stock at the initial public offering price and (ii) in the case of the $5.0 million note originally issued in February 2010, the principal amount plus accrued interest would, upon the completion of our initial public offering in which we receive a minimum level of proceeds from new investors or that results in certain of our current stockholders together owning less than 50% of our voting securities, become convertible, at the election of GSK, into shares of our common stock at the initial public offering price for a period of three years following such initial public offering. As of

September 30, 2012, both notes continued to accrue interest at the prime rate as published by The Wall Street Journal at the beginning of each calendar quarter, which for the quarter ended September 30, 2012, was 3.25%. In addition, as of September 30, 2012, both notes were set to mature in February 2013, if not earlier converted or repaid. The notes are guaranteed by Alnylam Pharmaceuticals, Inc. (Alnylam), and Isis Pharmaceuticals, Inc. (Isis), until the completion of our IPO. On October 10, 2012, upon the completion of our IPO, the $5.0 million note originally issued in April 2008 was converted into 1,447,037 shares of our common stock concurrently with the closing of the IPO at a conversion price of $4.00 per share. In addition, following the IPO, we cancelled the note issued to GSK in February 2010 and issued GSK a new note in the principal amount of $5.4 million, which accrues interest at 3.297% and has a maturity date of October 9, 2015. For additional information, see Note 8.

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We accounted for the amended and restated note issued to GSK in April 2008 as a debt modification. We accounted for the amended and restated 2010 GSK note as a debt extinguishment, and elected the fair value option as of the July 2012 amendment date. We recognized $1.7 million as loss on extinguishment of debt on the Condensed Statements of Operations and Comprehensive Loss and recorded the 2010 GSK note at $6.7 million on the Condensed Balance Sheets. At September 30, 2012, the fair value of the 2010 GSK note was recorded as $7.1 million on the Condensed Balance Sheets and we recognized $331,000 as Loss from valuation of convertible notes payable on the Condensed Statements of Operations and Comprehensive Loss for the three and nine months ended September 30, 2012.

In August 2012, we entered into a note purchase agreement with Biogen Idec, pursuant to which we issued Biogen Idec a convertible promissory note in the principal amount of $5.0 million. Unless earlier converted into our equity securities, all outstanding principal and accrued interest will become due on the maturity date, which will be the earlier of February 15, 2013 or the occurrence of a change in control. All outstanding principal and accrued interest under the convertible promissory note will convert into the same class of securities in our next qualified financing, which in the case of a private offering, is a financing in which new gross proceeds to us equal or exceed $10.0 million and in which case such conversion is at the election of Biogen Idec, and in the case of a public offering, is a firmly underwritten public offering pursuant to which all of our outstanding preferred stock is converted into common stock or pursuant to which we offer and sell at least $50.0 million of our common stock to the public and in which case such conversion is automatic. The price at which the convertible note will convert in such qualified financing will be the lowest price per share paid by other investors in such qualified financing, and if the conversion would cause Biogen Idec to own more than 5% of our outstanding capital stock, then the conversion may, at the election of Biogen Idec, be limited to a number of shares not to exceed 5% of our outstanding capital stock. The $5.0 million note and accrued interest thereunder of approximately $25,000 was converted into 1,256,232 shares of our common stock upon the closing of our initial public offering in October 2012 at a conversion price of $4.00 per share.

5. Stockholders Equity

Shares Reserved for Future Issuance

	September 30, 2012	December 31, 2011
Conversion of preferred stock	13,699,999	13,699,999
Common stock options outstanding	3,398,638	3,304,375
Common stock options available for future grant	731,781	228,638
Total common shares reserved for future issuance	17,830,418	17,233,012

6. Related-Party Transactions

The following table summarizes the amounts included in our operating expenses, which resulted from our activities with Isis (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
Services performed by Isis	$	$ 141	$	$ 480
Out-of-pocket expenses paid by Isis				695
Sub-license fees paid to Isis				
Total	$	$ 141	$	$ 1,175

No amounts were due from or payable to any related parties as of September 30, 2012 or December 31, 2011.

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7. Strategic Alliances and Collaboration

The following table summarizes the amounts included in our revenues which resulted from our strategic alliances and collaboration (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2012	2011	2012	2011
GSK	$ 186	$ 1,309	$ 1,809	$ 2,926
Sanofi	2,500	2,500	7,530	7,500
AstraZeneca	94		94	
Biogen Idec	29		29	
Total	$ 2,809	$ 3,809	$ 9,462	$ 10,426

GSK

In June 2012, we and GSK amended our product development and commercialization agreement to extend the target selection period for the fourth collaboration target under the agreement. The modification made to the agreement was considered a material modification, which required the application of the new authoritative guidance adopted by us in January 2011 for multiple element arrangements. We determined that the elements within the strategic alliance should be treated as a single unit of accounting because the delivered elements, the opt-in licenses for *micro*RNA product candidates, did not have stand-alone value to GSK. As a result of the extension of the target selection period, we will recognize the remaining deferred revenue over approximately eight years, which we believe represents our new performance period under the amended agreement.

Immuno-Inflammatory Alliance

The immuno-inflammatory alliance also includes contractual milestones. If all the product candidates are successfully developed and commercialized through pre-agreed sales targets we could receive milestone payments up to $432.5 million, including up to $15.5 million for preclinical milestones, up to $87.0 million for clinical milestones, up to $150.0 million for regulatory milestones and up to $180.0 million for commercialization milestones. We are also entitled to receive tiered royalties as a percentage of annual sales which can increase up to the low end of the 10 to 20% range. In July 2011, we earned a milestone payment under the immuno-inflammatory alliance, and recognized revenue of $500,000.

We have evaluated the remaining contingent event-based payments under our strategic alliance agreement with GSK based on the new authoritative guidance for milestones and determined that the preclinical and clinical payments meet the definition of a substantive milestone because they are related to events (i) that can be achieved based in whole or in part on our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and (iii) that would result in additional payments being due to us. Accordingly, revenue for these achievements will be recognized in its entirety in the period when the milestone is achieved and collectibility is reasonably assured. Other contingent event-based payments under the strategic alliance agreement for which payment is contingent upon the results of GSK s performance will not be accounted for using the milestone method. Such payments will be recognized as revenue over the remaining estimated period of performance, if any, and when collectibility is reasonably assured. We can earn the following preclinical milestones: $500,000 upon the selection of a fourth *micro*RNA target and $5.0 million upon the selection of a development candidate for each of the selected three targets. We can also earn the following clinical milestones for each of the selected three targets: $4.0 million for the initiation of a Phase 1 clinical trial; $5.0 million for the initiation of a Phase 2 clinical trial; and $20.0 million if GSK chooses to opt-in to the program following the completion of a proof-of-concept trial.

HCV Alliance

The HCV alliance also includes contractual milestones. If the HCV program is successful, we could receive milestone payments up to $144.0 million, including up to $5.0 million for preclinical milestones, up to $29.0 million for clinical milestones, up to $50.0 million for regulatory milestones and up to $60.0 million for commercialization milestones. In addition, we will receive up to double-digit royalties on sales from any product that GSK successfully commercializes under this alliance.

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We have evaluated the remaining contingent event-based payments under our strategic alliance agreement with GSK based on the new authoritative guidance for milestones and determined that the preclinical and clinical payments meet the definition of a substantive milestone because they are related to events (1) that can be achieved based in whole or in part on our performance or on the occurrence of a specific outcome resulting from our performance, (2) for which there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and (3) that would result in additional payments being due to us. Accordingly, revenue for these achievements will be recognized in its entirety in the period when the milestone is achieved and collectibility is reasonably assured. Other contingent event-based payments under the strategic alliance agreement for which payment is contingent upon the results of GSK s performance will not be accounted for using the milestone method. Such payments will be recognized as revenue over the remaining estimated period of performance, if any, and when collectibility is reasonably assured. We can earn a preclinical milestone of $5.0 million upon the selection of a development candidate. We can also earn the following clinical milestones: $4.0 million for initiation of a Phase 1 clinical trial; $5.0 million for the initiation of a Phase 2 clinical trial; and $20.0 million if GSK chooses to opt-in to the program following the completion of a proof-of-concept trial.

Sanofi

In July 2012, we amended and restated our collaboration and license agreement with Sanofi to expand the potential therapeutic applications of the *micro*RNA alliance targets to be developed under such agreement. The modification made to the agreement was considered a material modification, which required the application of the new authoritative guidance adopted by us in January 2011 for multiple element arrangements. We determined that the elements within the strategic alliance agreement with Sanofi should be treated as a single unit of accounting because the delivered elements did not have stand-alone value to Sanofi. The following three elements were delivered as part of the strategic alliance with Sanofi: (1) a license for up to four *micro*RNA targets; (2) an option to obtain a license for optional *micro*RNA compounds; and (3) an option to a research license under the Technology Alliance. As a result of our assessment, we will continue to recognize the remaining deferred revenue over five years, which we believe continues to represent our performance period under the amended agreement.

We have evaluated the remaining contingent event-based payments under our strategic alliance agreement with Sanofi based on the new authoritative guidance for milestones and determined that the preclinical payments meet the definition of a substantive milestone because they are related to events (i) that can be achieved based in whole or in part on our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and (iii) that would result in additional payments being due to us. Accordingly, revenue for these achievements will be recognized in its entirety in the period when the milestone is achieved and collectibility is reasonably assured. Other contingent event-based payments under the strategic alliance agreement for which payment is contingent upon the results of Sanofi s performance will not be accounted for using the milestone method. Such payments will be recognized as revenue over the remaining estimated period of performance, if any, and when collectibility is reasonably assured. We can earn the following preclinical milestones: $5.0 million upon the selection of each of the three remaining *micro*RNA targets; and $15.0 million upon the filing of an IND for each of the four *micro*RNA targets.

AstraZeneca

In August 2012, we entered into a collaboration and license agreement with AstraZeneca. Under the terms of the agreement, we have agreed to collaborate with AstraZeneca to identify, research and develop compounds targeting three *micro*RNA alliance targets primarily in the fields of cardiovascular diseases, metabolic diseases and oncology and granted to AstraZeneca an exclusive, worldwide license to thereafter develop, manufacture and commercialize lead compounds designated by AstraZeneca in the course of the collaboration activities against the alliance targets for all human therapeutic uses. Under the terms of the agreement we are required to use commercially reasonable efforts to perform all research, development and manufacturing activities described in the research plan, at our cost, until the acceptance of an IND or the end of the research term, which extends until the fourth anniversary of the date of the agreement, and may be extended only by mutual written agreement of us and AstraZeneca. Following the earlier to occur of the acceptance of an IND in a major market or the end of the research term, AstraZeneca will assume all costs, responsibilities and obligations for further development, manufacture and commercialization of alliance product candidates.

Under the terms of the agreement, we received an upfront payment of $3.0 million in October 2012. We considered the elements within the strategic alliance agreement as a single unit of accounting because the delivered element, the license, does not have stand-alone value. As a result, we are recognizing the upfront payment of $3.0 million to revenue on a straight-line basis over our estimated period of performance, which we have initially estimated to be four years based on the expected term of the research and development plan. If all three targets are successfully developed and commercialized through pre-agreed sales targets we could receive milestone payments up to $509.0 million, including up to $10.0 million for preclinical milestones, up to $129.0 million for clinical milestones, and up to $370.0 million for commercialization milestones. In addition, we are entitled to receive royalties based on a percentage of net sales which will range from the mid-single digits to the low end of the 10 to 20% range, depending upon the product and the volume of sales, which royalties may be reduced in certain, limited circumstances.

We have evaluated the contingent event-based payments under our strategic alliance agreement with AstraZeneca based on the new authoritative guidance for milestones and determined that the preclinical payments meet the definition of substantive milestones because they are related to events (i) that can be achieved based in whole or in part on our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and (iii) that would result in additional payments being due to us. Accordingly, revenue for these achievements will be recognized in its entirety in the period when the milestone is achieved and collectibility is reasonably assured. Other contingent event-based payments under the strategic alliance agreement for which payment is contingent upon the results of AstraZeneca s performance will not be accounted for using the milestone method. Such payments will be recognized as revenue over the remaining estimated period of performance, if any, and when collectibility is reasonably assured. We can earn the following preclinical milestones: $5.0 million for selection of a development candidate for *micro*RNA-33 (within a more limited time period) and $2.5 million for selection of a development candidate for each of the other two targets.

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Concurrently with the collaboration and license agreement, we entered into a common stock purchase agreement with AstraZeneca, pursuant to which we agreed to sell to AstraZeneca an aggregate of $25.0 million of our common stock concurrently with our initial public offering, at a price per share equal to the price at which we sell our common stock to the public in such initial public offering. In October 2012, in accordance with the common stock purchase agreement, we sold AstraZeneca 6,250,000 shares of our common stock at a price per share of $4.00 as further discussed in Note 8.

Biogen Idec

In August 2012, we entered into a collaboration and license agreement with Biogen Idec pursuant to which we and Biogen Idec have agreed to collaborate on *micro*RNA biomarkers for multiple sclerosis, or MS. Under the terms of the agreement, we granted Biogen Idec an exclusive, royalty free, worldwide license to our interest in the collaboration intellectual property for the purpose of commercializing non-*micro*RNA products for the treatment, diagnosis and prevention of MS and non-MS diseases and disorders. We also granted Biogen Idec an exclusive, royalty-free, worldwide license, with the right to sublicense, to our interest in the collaboration intellectual property (and a non-exclusive license to our background intellectual property) for the purpose of commercializing products for the diagnosis of MS. Biogen Idec granted us an exclusive, royalty-free, worldwide license, with the right to sublicense, to their interest in the collaboration intellectual property for the purpose of commercializing *micro*RNA products for the treatment of any disease, disorder or condition in humans. Pursuant to the agreement, we granted Biogen Idec a right of first negotiation on certain commercial transactions relating to *micro*RNA products which utilize intellectual property developed during the collaboration. Pursuant to the terms of the agreement, in August 2012 we received an upfront payment of $750,000. We are also eligible to receive research milestone payments of up to an aggregate of approximately $1.3 million. We considered the elements within the collaboration and license agreement as a single unit of accounting because the delivered element, the license, does not have stand-alone value. As a result, we are recognizing the upfront payment of $750,000 to revenue on a straight-line basis over our estimated period of performance, which we determined was approximately two years based on the expected term of the research and development plan.

We have evaluated the contingent event-based payments under our collaboration and license agreement with Biogen Idec based on the new authoritative guidance for milestones and determined that the research payments meet the definition of substantive milestones because they are related to events (i) that can be achieved based in whole or in part on our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and (iii) that would result in additional payments being due to us. Accordingly, revenue for these achievements will be recognized in its entirety in the period when the milestone is achieved and collectibility is reasonably assured. We can earn the following research milestones: $250,000 for identification of a *micro*RNA biomarker; $500,000 for validation of the *micro*RNA biomarker in a second independent sample set; and $500,000 upon the completion of a longitudinal study of patient samples on MS therapy.

Concurrently with the collaboration and license agreement, we entered into a note purchase agreement with Biogen Idec, pursuant to which we issued Biogen Idec a convertible promissory note in the principal amount of $5.0 million. The $5.0 million note and accrued interest thereunder of approximately $25,000 converted into 1,256,232 shares of our common stock upon the closing of our initial public offering in October 2012 at a conversion price of $4.00 per share.

8. Subsequent Events

Initial Public Offering and Other Financing Transactions

The unaudited pro forma balance sheet information below assumes the following transactions that were completed subsequent to September 30, 2012 had occurred on September 30, 2012:

On October 10, 2012, we completed our IPO whereby we sold 11,250,000 shares of common stock at $4.00 per share and received net proceeds of $40.7 million (after underwriting discounts and commissions and estimated offering costs not yet paid as of September 30, 2012);

On October 10, 2012, concurrent with the completion of our IPO, we sold 6,250,000 shares of common stock in a private placement to AstraZeneca at the initial public offering price of $4.00 per share and received net proceeds of $25.0 million;

On October 10, 2012, the automatic conversion of $5.0 million of outstanding principal plus accrued interest of $788,000 underlying a convertible note that we issued to GSK in April 2008 and amended and restated in July 2012 and the conversion of $5.0 million in outstanding principal plus accrued interest of $25,000 underlying a convertible note that we issued to Biogen Idec in August 2012, which together converted upon the completion of our IPO into an aggregate of 2,703,269 shares of our common stock. An aggregate of approximately $9,000 of interest was accrued from October 1, 2012 to October 10, 2012 which was included in the calculation of the shares issued but excluded from the pro forma adjustment to the accompanying balance sheet since such amounts were not yet accrued as of September 30, 2012;

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On October 10, 2012, the 27,399,999 outstanding shares of convertible preferred stock automatically converted into an aggregate of 13,699,999 shares of common stock upon the closing of our IPO;

On October 10, 2012, we filed an amended and restated certificate of incorporation to authorize 200,000,000 shares of common stock and 10,000,000 shares of undesignated preferred stock; and

On October 23, 2012, our underwriters partially exercised their option to purchase 1,480,982 additional shares of our common stock at $4.00 per share and we received net proceeds of $5.5 million (after underwriting discounts).

Pro forma net proceeds from our IPO and concurrent private placement were determined as follows (in thousands):

Gross proceeds (including over-allotment)	$ 75,924
Underwriting discounts and commissions	(3,366)
Estimated total offering costs	(2,600)
Offering costs paid as of September 30, 2012	1,307
Pro forma net proceeds	$ 71,265

The following table summarizes certain actual balance sheet data and pro forma balance sheet data to reflect the activities related to our IPO noted above, as of September 30, 2012 (in thousands):

	September 30, 2012	Pro forma September 30, 2012
Cash and cash equivalents	$ 17,426	$ 88,691
Other assets	2,096	125
Accounts payable and accrued expenses	1,726	1,062
Accrued interest	1,227	419
Convertible notes payable	10,000	
Convertible notes payable, at fair value	7,069	7,069
Convertible preferred stock	42,691	
Common stock		36
Additional paid-in capital	2,418	125,839
Total stockholders (deficit) equity	$ (51,148)	$ 72,309

Effective upon the closing of our IPO, 5,630,419 shares of common stock were reserved for future issuance under our 2012 equity incentive plan (2012 Plan), including 3,398,638 shares of common stock reserved for issuance upon the exercise of outstanding options issued under our 2009 equity incentive plan and 731,781 shares of common stock previously reserved for issuance under our 2009 equity incentive plan, in each case that were added to the shares reserved under the 2012 Plan upon its effectiveness.

Effective upon the closing of our IPO, 150,000 shares of common stock were reserved for future issuance under our 2012 employee stock purchase plan.

ITEM 2. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The interim unaudited condensed financial statements and this Management s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the financial statements and notes thereto for the year ended December 31, 2011 and the related Management s Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our final prospectus filed with the Securities and Exchange Commission on October 5, 2012 relating to our Registration Statement on Form S-1/A (File No. 333-183384) for our initial public offering.

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FORWARD-LOOKING STATEMENTS

This quarterly report on Form 10-Q may contain forward-looking statements within the meaning of the federal securities laws made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under Part II, Item 1A, Risk Factors in this quarterly report on Form 10-Q. Except as required by law, we assume no obligation to update these forward-looking statements, whether as a result of new information, future events or otherwise. These statements, which represent our expectations or beliefs concerning various future events, may contain words such as may, will, expect, anticipate, intend, plan, believe, estimate or other words indicating futu Such statements may include, but are not limited to, statements concerning the following:

- the initiation, cost, timing, progress and results of our research and development activities, preclinical studies and future clinical trials;
- our ability to obtain and maintain regulatory approval of our future product candidates, and any related restrictions, limitations, and/or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations;
- our plans to research, develop and commercialize our future product candidates;
- our strategic alliance partners election to pursue development and commercialization;
- our ability to attract collaborators with development, regulatory and commercialization expertise;
- our ability to obtain and maintain intellectual property protection for our future product candidates;
- the size and growth potential of the markets for our future product candidates, and our ability to serve those markets;
- our ability to successfully commercialize our future product candidates;
- the rate and degree of market acceptance of our future product candidates;
- our ability to develop sales and marketing capabilities, whether alone or with potential future collaborators;
- regulatory developments in the United States and foreign countries;
- the performance of our third-party suppliers and manufacturers;

the success of competing therapies that are or become available;

the loss of key scientific or management personnel;

our expectations regarding the time during which we will be an emerging growth company under the JOBS Act;

our use of the proceeds from our recently completed initial public offering and private placement; and

the accuracy of our estimates regarding expenses, future revenues, capital requirements and need for additional financing.

OVERVIEW

We are a biopharmaceutical company focused on discovering and developing first-in-class drugs that target microRNAs to treat a broad range of diseases. We were formed in 2007 when Alnylam Pharmaceuticals, Inc., or Alnylam, and Isis Pharmaceuticals, Inc., or Isis, contributed significant intellectual property, know-how and financial and human capital to pursue the development of drugs targeting microRNAs pursuant to a license and collaboration agreement. microRNAs are recently discovered, naturally occurring ribonucleic acid, or RNA, molecules that play a critical role in regulating key biological pathways. Scientific research has shown the improper balance, or dysregulation, of microRNAs is directly linked to many diseases. We believe we have assembled the leading position in the microRNA field, including expertise in microRNA biology and oligonucleotide chemistry, a broad intellectual property estate, key opinion leaders and disciplined drug discovery and development processes. We refer to these assets as our microRNA product platform. We are using our microRNA product platform to develop chemically modified, single-stranded oligonucleotides that we call anti-miRs. We use these anti-miRs to modulate microRNAs and by doing so return diseased cells to their healthy state. We believe microRNAs may be transformative in the field of drug discovery and that anti-miRs may become a new and major class of drugs with broad therapeutic application much like small molecules, biologics and monoclonal antibodies. We are currently optimizing anti-miRs in five distinct programs, both independently and with our strategic alliance partners, AstraZeneca AB, or AstraZeneca, GlaxoSmithKline plc, or GSK, and Sanofi.

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Under these strategic alliances, we are eligible to receive up to approximately $1.7 billion in milestone payments upon successful commercialization of microRNA therapeutics for the eleven programs contemplated by our agreements. These payments include up to $106.5 million upon achievement of preclinical and investigational new drug application, or IND, milestones, up to $350.0 million upon achievement of clinical development milestones, up to $420.0 million upon achievement of regulatory milestones and up to $850.0 million upon achievement of commercialization milestones. We anticipate that we will nominate at least two clinical development candidates within the next 12 months and file at least two INDs with the U.S. Food and Drug Administration, or FDA, by 2014.

Recent developments

On October 10, 2012, we completed our IPO whereby we sold 11,250,000 shares of common stock at $4.00 per share and received net proceeds of $40.7 million (after underwriting discounts and commissions and estimated offering costs not yet paid as of September 30, 2012);

On October 10, 2012, concurrent with the completion of our IPO, we sold 6,250,000 shares of common stock in a private placement to AstraZeneca at the initial public offering price of $4.00 per share and received net proceeds of $25.0 million;

On October 10, 2012, the automatic conversion of $5.0 million of outstanding principal plus accrued interest of $788,000 underlying a convertible note that we issued to GSK in April 2008 and amended and restated in July 2012 and the conversion of $5.0 million in outstanding principal plus accrued interest of $25,000 underlying a convertible note that we issued to Biogen Idec in August 2012, which together converted upon the completion of our IPO into an aggregate of 2,703,269 shares of our common stock. An aggregate of approximately $9,000 of interest was accrued from October 1, 2012 to October 10, 2012 which was included in the calculation of the shares issued but excluded from the pro forma adjustment to the accompanying balance sheet since such amounts were not yet accrued as of September 30, 2012;

On October 10, 2012, the 27,399,999 outstanding shares of convertible preferred stock automatically converted into an aggregate of 13,699,999 shares of common stock upon the closing of our IPO;

On October 10, 2012, we filed an amended and restated certificate of incorporation to authorize 200,000,000 shares of common stock and 10,000,000 shares of undesignated preferred stock; and

On October 23, 2012, our underwriters partially exercised their option to purchase 1,480,982 additional shares of our common stock at $4.00 per share and we received net proceeds of $5.5 million (after underwriting discounts).

FINANCIAL OPERATIONS OVERVIEW

Revenues

Our revenues generally consist of upfront payments for licenses or options to obtain licenses in the future, research and development funding and milestone payments under strategic alliance agreements, as well as funding received under government grants.

In the future, we may generate revenue from a combination of license fees and other upfront payments, research and development payments, milestone payments, product sales and royalties in connection with strategic alliances. We expect that any revenue we generate will fluctuate from quarter-to-quarter as a result of the timing of our achievement of preclinical, clinical, regulatory and commercialization milestones, if at all, the timing and amount of payments relating to such milestones and the extent to which any of our products are approved and successfully commercialized by us or our strategic alliance partners. If our strategic alliance partners do not elect or otherwise agree to fund our development costs pursuant to our strategic alliance agreements, or we or our strategic alliance partners fail to develop product candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenues, and our results of operations and financial position would be adversely affected.

Research and development expenses

Research and development expenses consist of costs associated with our research activities, including our drug discovery efforts, the preclinical development of our therapeutic programs, and our *micro*RNA biomarker program. Our research and development expenses include:

employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;

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- external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, consultants and our scientific advisory board;

- license and sublicense fees; and

- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

We expense research and development costs as incurred. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received.

To date, we have conducted research on many different *micro*RNAs with the goal of understanding how they function and identifying those that might be targets for therapeutic modulation. At any given time we are working on multiple targets, primarily within our five therapeutic areas of focus. Our organization is structured to allow the rapid deployment and shifting of resources to focus on the best targets based on our ongoing research. As a result, in the early phase of our development, our research and development costs are not tied to any specific target. However, we are currently spending the vast majority of our research and development resources on our lead development programs.

Since our conversion to a corporation in January 2009, we have grown from 15 researchers to 34 and have spent a total of $61.2 million in research and development expenses through September 30, 2012.

We expect our research and development expenses to increase for the foreseeable future as we advance our research programs toward the clinic and initiate clinical trials. The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time consuming. We or our strategic alliance partners may never succeed in achieving marketing approval for any of our product candidates. The probability of success for each product candidate may be affected by numerous factors, including preclinical data, clinical data, competition, manufacturing capability and commercial viability. Under our strategic alliance with GSK, we may be responsible for the development of product candidates through clinical proof-of-concept, depending on the time at which GSK may choose to exercise its option to obtain an exclusive license to develop, manufacture and commercialize product candidates on a program-by-program basis. Under our strategic alliance with Sanofi, we are responsible for the development of product candidates up to initiation of Phase 1 clinical trials, after which time Sanofi would be responsible for the costs of clinical development and commercialization and all related costs. Under our strategic alliance agreement with AstraZeneca, we are responsible for certain research and development activities with respect to each alliance target under a mutually agreed upon research and development plan until the earlier to occur of IND approval in a major market or the end of the research term under the agreement. We also have several independent programs for which we are responsible for all of the research and development costs, unless and until we partner any of these programs in the future.

Most of our product development programs are at an early stage, and successful development of future product candidates from these programs is highly uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each future product candidate and are difficult to predict. We anticipate that we will make determinations as to which programs to pursue and how much funding to direct to each program on an ongoing basis in response to our ability to maintain or enter into new strategic alliances with respect to each program or potential product candidate, the scientific and clinical success of each future product candidate, as well as ongoing assessments as to each future product candidate s commercial potential. We will need to raise additional capital and may seek additional strategic alliances in the future in order to advance our various programs.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation, related to our executive, finance, legal, business development and support functions. Other general and administrative expenses include allocated facility-related costs not otherwise included in research and development expenses, travel expenses and professional fees for auditing, tax and legal services. We expect that general and administrative expenses will increase in the future as we expand our operating activities and incur additional costs associated with being a publicly-traded company. These increases will likely include legal fees, accounting fees, directors and officers liability insurance premiums and fees associated with investor relations.

Other income (expense), net

Other income (expense) includes interest income and expense, and on occasion income or expense of a non-recurring nature. We earn interest income from interest-bearing accounts and money market funds for cash and cash equivalents and marketable securities, such as interest-bearing

bonds, for our short-term investments. Interest expense represents the amounts payable to GSK and Biogen Idec under convertible notes and amounts paid under equipment and tenant improvement financing arrangements. In addition, we recognized a loss on the extinguishment of debt as a result of amending and restating our convertible note payable issued to GSK in February 2010. As a result of electing to value the note under the fair value option, we will recognize all changes to the fair value of the note as gain (loss) from valuation of convertible note payable.

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CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT JUDGMENTS AND ESTIMATES

The preparation of our unaudited condensed financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities, and the revenues and expenses incurred during the reported periods. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We discussed accounting policies and assumptions that involve a higher degree of judgment and complexity within Note 1 to our financial statements in our Registration Statement on Form S-1/A (File No. 333-183384). Except as set forth in the paragraph below, there have been no material changes to our critical accounting policies and estimates from those disclosed in our Registration Statement on Form S-1/A (File No. 333-183384).

Fair Value Option

Applicable accounting policies permit entities to choose, at specified election dates, to measure specified items at fair value if the decision about the election is: 1) applied instrument by instrument, 2) irrevocable, and 3) applied to an entire instrument. In addition, an entity may choose to elect the fair value option only at the date of an event (i.e., significant modifications of debt, as defined) that requires an eligible item to be measured at fair value at the time of the event but does not require fair value measurement at each reporting date after that. In July 2012, we accounted for the amended and restated note issued to GSK in February 2010 as a debt extinguishment of the original note. We elected to measure the amended note under the fair value option. The difference between the carrying value of the original note and the fair value of the amended note was recorded as a loss on extinguishment of debt to non-operating earnings. Thereafter, any change to the fair value of the amended note will be recorded as gain (loss) from valuation of convertible notes payable to non-operating earnings.

RESULTS OF OPERATIONS

Comparison of the three months ended September 30, 2012 and 2011

The following table summarizes the results of our operations for the three months ended September 30, 2012 and 2011, together with the changes in those items in dollars (in thousands):

	Three months ended September 30,		
	2012	2011 (unaudited)	Increase/(Decrease)
Revenue under strategic alliances	$ 2,809	$ 3,809	$ (1,000)
Research and development expenses	5,248	3,875	1,373
General and administrative expenses	1,093	907	186
Loss on extinguishment of debt	(1,738)		1,738
Loss from valuation of convertible note payable	(331)		331

Revenue. We recognized revenue of $2.8 million in the three months ended September 30, 2012 and $3.8 million in the same period in 2011. Our revenue during these periods consisted primarily of amortization of upfront payments received from Sanofi and GSK which we amortize monthly on a straight-line basis over our period of performance. The total amortization attributable to payments from Sanofi was $2.5 million for each of the three months ended September 30, 2012 and 2011, and the total amortization attributable to payments from GSK was $186,000 for the three months ended September 30, 2012 and $1.3 million for the three months ended September 30, 2011. The decrease in the amount amortized for GSK for the three months ended September 30, 2012 compared to 2011 is the result of our June 2012 amendment to the collaboration agreement which extended our estimated period of performance and the resulting amortization period.

Research and development expenses. Research and development expenses were $5.2 million in the three months ended September 30, 2012 and $3.9 million for the same period in 2011. The increase of $1.4 million is related to a $124,000 increase in payroll expenses, a $508,000 increase in laboratory supplies, and a $660,000 increase in external services which was driven by additional hiring and efforts to advance our preclinical programs.

General and administrative expenses. General and administrative expenses were $1.1 million in the three months ended September 30, 2012 and $907,000 for the same period in 2011. The increase of $186,000 primarily represents legal services related to our transactions with AstraZeneca and Biogen Idec completed in August 2012.

Loss on extinguishment of debt. We recognized a $1.7 million loss on extinguishment of debt as a result of amending our $5.0 million 2010 GSK convertible promissory note in July 2012.

Loss from valuation of convertible note payable. We recognized a $331,000 loss as a result of the change in the fair value on the $5.0 million 2010 GSK convertible promissory note in July 2012.

Comparison of the nine months ended September 30, 2012 and 2011

The following table summarizes the results of our operations for the nine months ended September, 2012 and 2011, together with the changes in those items in dollars (in thousands):

	Nine months ended September 30,		
	2012	2011	Increase/(Decrease)
Revenue under strategic alliances and grants	$ 9,462	$ 10,426	$ (964)
Research and development expenses	14,735	12,823	1,912
General and administrative expenses	2,998	2,864	134
Loss on extinguishment of debt	(1,738)		1,738
Loss from valuation of convertible note payable	(331)		331

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Revenue. We recognized revenue of $9.5 million for the nine months ended September 30, 2012 and $10.4 million for the nine months ended September 30, 2011. Our revenue during these periods consisted primarily of amortization of upfront payments received from Sanofi and GSK which we amortize monthly on a straight-line basis over our period of performance. The total amortization attributable to payments from Sanofi was $7.5 million for each of the nine months ended September 30, 2012 and 2011, and the total amortization attributable to payments from GSK was $1.8 million for the nine months ended September 30, 2012 and $2.9 million for the nine months ended September 30, 2011. The decrease in the amount amortized for GSK is the result of our June 2012 amendment to the collaboration agreement which extended our estimated period of performance and the resulting amortization period.

Research and development expenses. Research and development expenses were $14.7 million for the nine months ended September 30, 2012 and $12.8 million for the nine months ended September 30, 2011. The increase of $1.9 million is related to a $311,000 increase in payroll expenses, a $842,000 increase in external services, and a $854,000 increase in laboratory supplies which was driven by additional hiring and efforts to advance our preclinical programs.

General and administrative expenses. General and administrative expenses were $3.0 million for the nine months ended September 30, 2012 and $2.9 million for the nine months ended September 30, 2011. The increase of $134,000 is primarily related to a $97,000 increase in accruals for our annual performance bonuses, and a $357,000 increase in consulting services and legal fees, the latter of which related to our transactions with AstraZeneca and Biogen Idec, offset by a $332,000 reduction in support services received from Isis.

Loss on extinguishment of debt. We recognized a $1.7 million loss on extinguishment of debt as a result of amending our $5.0 million 2010 GSK convertible promissory note in July 2012.

Loss from valuation of convertible note payable. We recognized a $331,000 loss as a result of the change in the fair value on the $5.0 million 2010 GSK convertible promissory note in July 2012

LIQUIDITY AND CAPITAL RESOURCES

From our inception in September 2007 through September 30, 2012, we have raised $116.6 million to fund our operations primarily through upfront payments, research funding and preclinical milestones from our strategic alliances, from government grants and from the sale of equity and convertible debt securities. As of September 30, 2012, we had received $61.6 million in upfront payments, research funding and preclinical milestones from our strategic alliances with GSK and Sanofi and government grants, and $55.0 million from the sale of equity and convertible debt securities.

As of September 30, 2012, we had $30.9 million in cash, cash equivalents and short-term investments. The following table shows a summary of our cash flows for the nine months ended September 30, 2012 and 2011:

	Nine months ended September 30,	
	2012	2011
	(unaudited)	
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (9,572)	$ (9,578)
Investing activities	14,354	(803)
Financing activities	3,469	(269)
Total	$ 8,251	$ (10,650)

Operating activities. Net cash used in operating activities were $9.6 million for each of the nine months ended September 30, 2012 and 2011. The primary drivers of the use of cash in operating activities for 2012 was the $3.0 million receivable outstanding from AstraZeneca at September 30, 2012, and amortization of deferred revenue relating to payments received under our strategic alliances of $9.4 million, offset by the addition of $8.8 million in deferred revenue related to R&D funding from Sanofi and our agreements with AstraZeneca and Biogen Idec entered into in August 2012. The primary driver of the use of cash in operating activities for 2011 was amortization of deferred revenue relating to payments received under our strategic alliances of $4.9 million. In addition, during the first quarter of 2011 we paid down our year-end accruals related to CROs and year-end management bonuses earned in 2010. The decrease in cash used from operating activities of $1.4 million between the nine months ended September 30, 2012 and 2011 was the result of lower payments made on our accounts payables and accrued

payroll, which includes prior year bonuses, during the first quarter of 2012.

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Investing activities. Net cash provided by or used in investing activities for periods presented primarily relate to the purchase, sale and maturity of investments used to fund the day-to-day needs of our business. In 2011, we reinvested substantially all our short-term securities upon maturity. In 2012, approximately $15.3 million of short-term maturities were used to fund our operations.

Financing activities. Net cash provided by financing activities was $3.4 million for the nine months ended September 30, 2012, compared to $269,000 used in financing activities for the same period in 2011. The primary driver of the cash provided by financing activities was the receipt of a $5.0 million convertible note from Biogen Idec in August 2012, offset by $1.3 million in payments related to our initial public offering.

Subsequent to September 30, 2012, we completed the following transactions:

On October 10, 2012, we completed our IPO of common stock pursuant to a Registration Statement that was declared effective on October 4, 2012. We sold 11,250,000 shares of our common stock, at a price of $4.00 per share. The underwriters exercised their over-allotment option on October 23, 2012, selling an additional 1,480,982 shares at $4.00 per share. As a result of the IPO, we raised a total of $44.9 million in net proceeds after deducting underwriting discounts and commissions of $3.4 million and offering expenses of $2.6 million. Costs directly associated with our IPO were capitalized and recorded as deferred IPO costs prior to the closing of the IPO. These costs have been recorded as a reduction of the proceeds received in arriving at the amount to be recorded in additional paid-in capital.

Upon the closing of the IPO, all shares of our convertible preferred stock automatically converted into 13,699,999 shares of our common stock. Also upon the closing of the IPO, $10.8 million of convertible notes (including accrued interest) converted into 2,703,269 shares of our common stock.

Concurrent with the closing of our IPO, we completed a $25.0 million private placement with AstraZeneca for $4.00 share and issued 6,250,000 shares of our common stock.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

The following is a summary of our long-term contractual obligations as of September 30, 2012 (in thousands):

		Payments due by period			
	Total	Less than 1 year	1 3 Years	3 5 Years	More than 5 years
Operating lease obligation relating to facility[1]	$ 3,092	$ 531	$ 1,256	$ 1,305	$
Principal under convertible notes payable, excluding accrued interest[2]	15,000	15,000			
Equipment financing obligation, including interest[3]	30	30			
Tenant improvement obligation, including interest[4]	535	113	225	197	
Total	$ 14,368	$ 900	$ 11,384	$ 1,642	$

(1) We lease 21,834 square feet for office and laboratory space in La Jolla, California under an operating lease that expires in June 2017.

(2) In April 2008, we issued a three-year convertible note to GSK in exchange for $5.0 million. In February 2010, we issued an additional three-year convertible note for $5.0 million. In January 2011, we and GSK amended the due date of the first convertible note payable to February 2013, which aligned the terms with those of the second note. Both convertible notes were amended and restated in July 2012. Until converted or cancelled, both convertible notes accrued interest at the prime rate as published by The Wall Street Journal at the beginning of each calendar quarter, which at the beginning of the third quarter of 2012, was 3.25%. We did not, and were under no obligation to, make periodic interest payments on either note, and as a result interest is not included in

the table above. Aggregate accrued interest as of September 30, 2012 was $1.2 million. Upon the completion of our IPO in October 2012, the principal and accrued interest under the first note automatically converted into shares of our common stock and the second note was amended and restated into a new convertible note with an adjusted face amount of $5.4 million. The new note matures on October 9, 2015 and bears interest at a rate of 3.297% per annum on the basis of a 360 day year.

(3) In September 2009, we entered into a $1.0 million credit facility to finance the purchase of lab equipment. The loan under this credit facility is secured by the assets financed under this obligation and is being repaid over 36 equal monthly installments. The interest rate is fixed at 5.9%.

(4) In conjunction with our lease, we were provided a tenant improvement allowance of $631,000, which was used to fund additional leasehold improvements. We are obligated to repay our landlord the tenant improvement allowance, plus interest at a fixed rate of 6.5%, on a monthly basis over the seven-year term of the lease.

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Off-Balance Sheet Arrangements

As of September 30, 2012, we did not have any off-balance sheet arrangements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Some of the securities that we invest in may have market risk in that a change in prevailing interest rates may cause the principal amount of the marketable securities to fluctuate. Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. We invest our excess cash primarily in commercial paper and debt instruments of financial institutions, corporations, U.S. government-sponsored agencies and the U.S. Treasury. The primary objectives of our investment activities are to ensure liquidity and to preserve principal while at the same time maximizing the income we receive from our marketable securities without significantly increasing risk. Additionally, we established guidelines regarding approved investments and maturities of investments, which are designed to maintain safety and liquidity.

Because of the short-term maturities of our cash equivalents and marketable securities, we do not believe that an increase in market rates would have any significant impact on the realized value of our marketable securities. If a 10 percent change in interest rates were to have occurred on September 30, 2012, this change would not have had a material effect on the fair value of our investment portfolio as of that date.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

As of September 30, 2012, we carried out an evaluation, under the supervision and with the participation of our management, including our chief executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended. Based on this evaluation, our chief executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of September 30, 2012.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

You should carefully consider the following risk factors, as well as the other information in this report, before deciding whether to purchase, hold or sell shares of our common stock. The occurrence of any of the following risks could harm our business, financial condition, results of operations and/or growth prospects or cause our actual results to differ materially from those contained in forward-looking statements we have made in this report and those we may make from time to time. You should consider all of the factors described when evaluating our business. We have marked with an asterisk (*) those risk factors that reflect changes from the risk factors included in our final prospectus filed with the

Securities and Exchange Commission on October 5, 2012 relating to our Registration Statement on Form S1/A (File No. 333-183384) for our initial public offering.

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RISKS RELATED TO OUR FINANCIAL CONDITION AND NEED FOR ADDITIONAL CAPITAL

We have a limited operating history, have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.*

We are a preclinical-stage, biopharmaceutical discovery and development company, formed in 2007, with a limited operating history. Since inception, our operations have been primarily limited to organizing and staffing our company, acquiring and in-licensing intellectual property rights, developing our *micro*RNA product platform, undertaking basic research around *micro*RNA targets and conducting preclinical studies for our initial programs. We have not yet identified product candidates for clinical development, initiated a clinical trial or obtained regulatory approval for any product candidates. Consequently, any predictions about our future success or viability, or any evaluation of our business and prospects, may not be accurate.

We have incurred losses in each year since our inception in September 2007. Our net losses were approximately $5.7 million and $1.0 million for the three months ended September 30, 2012 and 2011, and $10.5 million and $5.6 million for the nine months ended September 30, 2012 and 2011, respectively. As of September 30, 2012, we had an accumulated deficit of approximately $53.5 million.

We have devoted most of our financial resources to research and development, including our preclinical development activities. To date, we have financed our operations primarily through the sale of equity securities and convertible debt and from revenue received from our strategic alliance partners. We have entered into strategic alliances with Sanofi to develop our miR-21 programs for hepatocellular carcinoma, or HCC, and kidney fibrosis, with GSK, to develop our miR-122 program for hepatitis C virus infection, or HCV, and with AstraZeneca, to develop our miR-33 program for atherosclerosis. Under our agreement with GSK, GSK has an option to obtain exclusive worldwide licenses for the development, manufacture and commercialization of potential product candidates selected from our *micro*RNA product platform. If GSK exercises its option to obtain a license to develop, manufacture and commercialize such product candidates, GSK will assume responsibility for funding and conducting further clinical development and commercialization activities for such product candidates. However, if GSK does not exercise its option within the timeframes that we expect, or at all, or if Sanofi terminates its agreement with us, we will be responsible for funding further development of these product candidates and may not have the resources to do so unless we are able to enter into another strategic alliance for these product candidates. The size of our future net losses will depend, in part, on the rate of future expenditures and our ability to obtain funding through equity or debt financings, strategic alliances or grants. We have not initiated clinical development of any product candidate to date and it will be several years, if ever, before we have a product candidate ready for commercialization. Even if we or our strategic alliance partners successfully obtain regulatory approval to market a product candidate, our revenues will also depend upon the size of any markets in which our product candidates have received market approval, and our ability to achieve sufficient market acceptance and adequate market share for our products.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from quarter to quarter. We anticipate that our expenses will increase substantially if and as we: continue our research and preclinical development of our future product candidates, both independently and under our strategic alliance agreements; seek to identify additional *micro*RNA targets and product candidates; acquire or in-license other products and technologies; initiate clinical trials for our product candidates; seek marketing approvals for our product candidates that successfully complete clinical trials; ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval; maintain, expand and protect our intellectual property portfolio; hire additional clinical, quality control and scientific personnel; and create additional infrastructure to support our operations as a public company and our product development and planned future commercialization efforts.

We have never generated any revenue from product sales and may never be profitable.

Our ability to generate revenue and achieve profitability depends on our ability, alone or with strategic alliance partners, to successfully complete the development of, obtain the necessary regulatory approvals for and commercialize product candidates. We do not anticipate generating revenues from sales of products for the foreseeable future, if ever. Our ability to generate future revenues from product sales depends heavily on our success in:

- identifying and validating new *micro*RNAs as therapeutic targets;
- completing our research and preclinical development of future product candidates, including our miR-21, miR-122, miR-33 and miR-10b programs;

initiating and completing clinical trials for future product candidates;

seeking and obtaining marketing approvals for future product candidates that successfully complete clinical trials;

establishing and maintaining supply and manufacturing relationships with third parties;

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launching and commercializing future product candidates for which we obtain marketing approval, with an alliance partner or, if launched independently, successfully establishing a sales force, marketing and distribution infrastructure;

maintaining, protecting and expanding our intellectual property portfolio; and

attracting, hiring and retaining qualified personnel.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to predict the timing or amount of increased expenses and when we will be able to achieve or maintain profitability, if ever. In addition, our expenses could increase beyond expectations if we are required by the FDA or foreign regulatory agencies to perform studies and trials in addition to those that we currently anticipate.

Even if one or more of the future product candidates that we independently develop is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. Even if we are able to generate revenues from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations.

We may need to raise additional funding, which may not be available on acceptable terms, or at all.*

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We expect our research and development expenses to substantially increase in connection with our ongoing activities, particularly as we advance our product candidates toward clinical programs. We will need to seek alternative financing or change our operational plans to continue as a going concern. We may need to raise additional funds to support our operations and such funding may not be available to us on acceptable terms, or at all.

We expect that our existing cash and cash equivalents, together with interest, will be sufficient to fund our current operations through at least the end of 2015. However, changing circumstances may cause us to consume capital more rapidly than we currently anticipate. For example, as we move our lead compounds through toxicology and other preclinical studies, also referred to as nonclinical studies, required to file an investigational new drug application, or IND, which may occur as early as 2014, we may have adverse results requiring that we find new product candidates, or our strategic alliance partners may not elect to pursue the development and commercialization of any of our *micro*RNA product candidates that are subject to their respective strategic alliance agreements with us. Any of these events may increase our development costs more than we expect. We may need to raise additional funds or otherwise obtain funding through strategic alliances if we choose to initiate clinical trials for new product candidates other than programs currently partnered. In any event, we will require additional capital to obtain regulatory approval for, and to commercialize, future product candidates. Raising funds in the current economic environment, when the capital markets have been affected by the global recession, may present additional challenges.

If we are required to secure additional financing, such additional fundraising efforts may divert our management from our day-to-day activities, which may adversely affect our ability to develop and commercialize future product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise additional capital when required or on acceptable terms, we may be required to:

significantly delay, scale back or discontinue the development or commercialization of any future product candidates;

seek strategic alliances for research and development programs at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available; or

relinquish or license on unfavorable terms, our rights to technologies or any future product candidates that we otherwise would seek to develop or commercialize ourselves.

If we are required to conduct additional fundraising activities and we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we will be prevented from pursuing development and commercialization efforts, which will have a material adverse effect on our business, operating results and prospects.

We may sell our equity or debt securities to fund our operations, which may result in dilution to our stockholders and impose restrictions on our business.*

In order to raise additional funds to support our operations, we may sell our equity or debt securities, which would result in dilution to all of our stockholders or impose restrictive covenants that adversely impact our business. The sale of additional equity or convertible securities would result in the issuance of additional shares of our capital stock and dilution to all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected and we may not be able to meet our debt service obligations.

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RISKS RELATED TO THE DISCOVERY AND DEVELOPMENT OF PRODUCT CANDIDATES

The approach we are taking to discover and develop drugs is novel and may never lead to marketable products.

We have concentrated our therapeutic product research and development efforts on *micro*RNA technology, and our future success depends on the successful development of this technology and products based on our *micro*RNA product platform. Neither we nor any other company has received regulatory approval to market therapeutics targeting *micro*RNAs. The scientific discoveries that form the basis for our efforts to discover and develop product candidates are relatively new. The scientific evidence to support the feasibility of developing product candidates based on these discoveries is both preliminary and limited. If we do not successfully develop and commercialize product candidates based upon our technological approach, we may not become profitable and the value of our common stock may decline.

Further, our focus solely on *micro*RNA technology for developing drugs as opposed to multiple, more proven technologies for drug development increases the risks associated with the ownership of our common stock. If we are not successful in developing any product candidates using *micro*RNA technology, we may be required to change the scope and direction of our product development activities. In that case, we may not be able to identify and implement successfully an alternative product development strategy.

We may not be successful in our efforts to identify or discover potential product candidates.

The success of our business depends primarily upon our ability to identify, develop and commercialize *micro*RNA therapeutics. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for a number of reasons, including:

- our research methodology or that of our strategic alliance partners may be unsuccessful in identifying potential product candidates;
- potential product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval; or
- our strategic alliance partners may change their development profiles for potential product candidates or abandon a therapeutic area.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, which would have a material adverse effect on our business and could potentially cause us to cease operations. Research programs to identify new product candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential programs or product candidates that ultimately prove to be unsuccessful.

All of our programs are still in preclinical development. Preclinical testing and clinical trials of our future product candidates may not be successful. If we are unable to successfully complete preclinical testing and clinical trials of our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the identification and preclinical development of product candidates that target *micro*RNAs. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our future product candidates. The success of our future product candidates will depend on several factors, including the following:

- successful completion of preclinical studies and clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;

obtaining and maintaining patent and trade secret protection for future product candidates;

establishing and maintaining manufacturing relationships with third parties or establishing our own manufacturing capability; and

successfully commercializing our products, if and when approved, whether alone or in collaboration with others.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully complete the development of, or commercialize, our product candidates, which would materially harm our business.

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If clinical trials of our future product candidates fail to demonstrate safety and efficacy to the satisfaction of regulatory authorities or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our future product candidates.

Before obtaining marketing approval from regulatory authorities for the sale of future product candidates, we or our strategic alliance partners must then conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for their products.

Events which may result in a delay or unsuccessful completion of clinical development include:

- delays in reaching an agreement with the FDA on final trial design;
- imposition of a clinical hold following an inspection of our clinical trial operations or trial sites by the FDA or other regulatory authorities;
- delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites;
- our inability to adhere to clinical trial requirements directly or with third parties such as CROs;
- delays in obtaining required institutional review board approval at each clinical trial site;
- delays in recruiting suitable patients to participate in a trial;
- delays in the testing, validation, manufacturing and delivery of the product candidates to the clinical sites;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- delays caused by patients dropping out of a trial due to product side effects or disease progression;
- clinical sites dropping out of a trial to the detriment of enrollment;
- time required to add new clinical sites; or
- delays by our contract manufacturers to produce and deliver sufficient supply of clinical trial materials.

If we or our strategic alliance partners are required to conduct additional clinical trials or other testing of any future product candidates beyond those that are currently contemplated, are unable to successfully complete clinical trials of any such product candidates or other testing, or if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we or our strategic alliance partners may:

- be delayed in obtaining marketing approval for our future product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do, which would impair our ability to successfully commercialize our product candidates and may harm our business and results of operations. Any inability to successfully complete preclinical and clinical development, whether independently or with our strategic alliance partners, could result in additional costs to us or impair our ability to generate revenues from product sales, regulatory and commercialization milestones and royalties.

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Any of our future product candidates may cause adverse effects or have other properties that could delay or prevent their regulatory approval or limit the scope of any approved label or market acceptance.

Adverse events, or AEs, caused by our future product candidates could cause us, other reviewing entities, clinical trial sites or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval. Certain oligonucleotide therapeutics have shown injection site reactions and pro-inflammatory effects and may also lead to impairment of kidney or liver function. There is a risk that our future product candidates may induce similar adverse events.

If AEs are observed in any clinical trials of our future product candidates, including those that our strategic partners may develop under our alliance agreements, our or our partners ability to obtain regulatory approval for product candidates may be negatively impacted.

Further, if any of our future products, if and when approved for commercial sale, cause serious or unexpected side effects, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the product or impose restrictions on its distribution in the form of a modified risk evaluation and mitigation strategy;
- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;
- we may be required to change the way the product is administered or conduct additional clinical trials;
- we could be sued and held liable for harm caused to patients; or
- our reputation may suffer.

Any of these events could prevent us or our partners from achieving or maintaining market acceptance of the affected product and could substantially increase the costs of commercializing our future products and impair our ability to generate revenues from the commercialization of these products either by us or by our strategic alliance partners.

Even if we complete the necessary preclinical studies and clinical trials, we cannot predict whether or when we will obtain regulatory approval to commercialize a product candidate and we cannot, therefore, predict the timing of any revenue from a future product.

Neither we nor our strategic alliance partners can commercialize a product until the appropriate regulatory authorities, such as the FDA, have reviewed and approved the product candidate. The regulatory agencies may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval. Additional delays may result if an FDA Advisory Committee recommends restrictions on approval or recommends non-approval. In addition, we or our strategic alliance partners may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory agency policy during the period of product development, clinical trials and the review process.

Even if we obtain regulatory approval for a product candidate, we will still face extensive regulatory requirements and our products may face future development and regulatory difficulties.

Even if we obtain regulatory approval in the United States, the FDA may still impose significant restrictions on the indicated uses or marketing of our future product candidates, or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance. The holder of an approved new drug application, or NDA, is obligated to monitor and report AEs and any failure of a product to meet the specifications in the NDA. The holder of an approved NDA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws.

In addition, drug product manufacturers and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, and adherence to commitments made in the NDA. If we or a regulatory agency discovers previously unknown problems with a product such as AEs of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions relative to that product or the manufacturing facility, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

If we or our partners fail to comply with applicable regulatory requirements following approval of any of our future product candidates, a regulatory agency may:

issue a warning letter asserting that we are in violation of the law;

seek an injunction or impose civil or criminal penalties or monetary fines;

suspend or withdraw regulatory approval;

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suspend any ongoing clinical trials;

refuse to approve a pending NDA or supplements to an NDA submitted by us;

seize product; or

refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize our future products and generate revenues.

We may not be successful in obtaining or maintaining necessary rights to *micro*RNA targets, drug compounds and processes for our development pipeline through acquisitions and in-licenses.

Presently we have rights to the intellectual property, through licenses from third parties and under patents that we own, to modulate only a subset of the known *micro*RNA targets. Because our programs may involve a range of *micro*RNA targets, including targets that require the use of proprietary rights held by third parties, the growth of our business will likely depend in part on our ability to acquire, in-license or use these proprietary rights. In addition, our future product candidates may require specific formulations to work effectively and efficiently and these rights may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

For example, we sometimes collaborate with U.S. and foreign academic institutions to accelerate our preclinical research or development under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution s rights in technology resulting from the collaboration. Regardless of such right of first negotiation for intellectual property, we may be unable to negotiate a license within the specified time frame or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment. If we are unable to successfully obtain rights to required third-party intellectual property rights, our business, financial condition and prospects for growth could suffer.

We may use our financial and human resources to pursue a particular research program or product candidate and fail to capitalize on programs or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and human resources, we intend to leverage our existing strategic alliance agreements and enter into new strategic alliance agreements for the development and commercialization of our programs and potential product candidates in indications with potentially large commercial markets such as HCC, fibrosis and HCV, while focusing our internal development resources and any internal sales and marketing organization that we may establish on research programs and future product candidates for selected markets, such as orphan diseases. As a result, we may forego or delay pursuit of opportunities with other programs or product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and future product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through strategic alliance, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate, or we may allocate internal resources to a product candidate in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

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Although we maintain workers compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

RISKS RELATED TO OUR RELIANCE ON THIRD PARTIES

We will depend upon our strategic alliances for the development and eventual commercialization of certain future *micro*RNA product candidates. If these strategic alliances are unsuccessful or are terminated, we may be unable to commercialize certain product candidates and we may be unable to generate revenues from our development programs.

We are likely to depend upon third party alliance partners for financial and scientific resources for the clinical development and commercialization of certain of our *micro*RNA product candidates. These strategic alliances will likely provide us with limited control over the course of development of a future *micro*RNA product candidate, especially once a candidate has reached the stage of clinical development. For example, in our alliance with GSK, GSK has the option to obtain an exclusive worldwide license to develop, manufacture and commercialize product candidates upon the achievement of relevant efficacy and safety endpoints in the first clinical trial designed to show efficacy, safety and tolerability with respect to each of four potential programs or earlier, at GSK s option. However, GSK is not under any obligation to exercise its option to progress any of our *micro*RNA development candidates. While each of AstraZeneca, GSK and Sanofi have development obligations with respect to programs that they may elect to pursue under their respective agreements, our ability to ultimately recognize revenue from these relationships will depend upon the ability and willingness of our alliance partners to successfully meet their respective responsibilities under our agreements with them. Our ability to recognize revenues from successful strategic alliances may be impaired by several factors including:

- an alliance partner may shift its priorities and resources away from our programs due to a change in business strategies, or a merger, acquisition, sale or downsizing of its company or business unit;
- an alliance partner may cease development in therapeutic areas which are the subject of our strategic alliances;
- an alliance partner may change the success criteria for a particular program or potential product candidate thereby delaying or ceasing development of such program or candidate;
- a significant delay in initiation of certain development activities by an alliance partner will also delay payment of milestones tied to such activities, thereby impacting our ability to fund our own activities;
- an alliance partner could develop a product that competes, either directly or indirectly, with an alliance product;
- an alliance partner with commercialization obligations may not commit sufficient financial or human resources to the marketing, distribution or sale of a product;
- an alliance partner with manufacturing responsibilities may encounter regulatory, resource or quality issues and be unable to meet demand requirements;
- an alliance partner may exercise its rights under the agreement to terminate a strategic alliance;

- a dispute may arise between us and an alliance partner concerning the research, development or commercialization of a program or product candidate resulting in a delay in milestones, royalty payments or termination of a program and possibly resulting in costly litigation or arbitration which may divert management attention and resources; and

- an alliance partner may use our proprietary information or intellectual property in such a way as to invite litigation from a third party or fail to maintain or prosecute intellectual property rights such that our rights in such property are jeopardized.

Specifically, with respect to termination rights, after expiration of an initial research term, Sanofi may terminate the entire alliance or any alliance target program for any or no reason upon 30 days written notice to us. The agreement with Sanofi may also be terminated by either party for material breach by the other party, including a failure to comply with such party s diligence obligations that remains uncured after 120 days. Similarly, GSK may terminate the entire alliance or any alliance target program for any or no reason upon 90 days written notice to us and the agreement may also be terminated by either party for material breach by the other party, including a failure to comply with such party s diligence obligations that remains uncured after a specified notice period. The agreement with AstraZeneca may be terminated by either party in the event of the other party s material breach which remains uncured after 40 business days following notice thereof (or 30 business days in the case of nonpayment). In addition, AstraZeneca may terminate the agreement in its entirety for any reason upon 60 business days written notice to us. Depending on the timing of any such termination, we may not be entitled to receive the option exercise fees or milestone payments, as these payments terminate with termination of the respective program or agreement.

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If any of our alliance partners do not elect to pursue the development and commercialization of our *micro*RNA development candidates or if they terminate the strategic alliance, then, depending on the event:

in the case of Sanofi, under certain circumstances, we may owe Sanofi royalties with respect to product candidates covered by our agreement with Sanofi that we elect to continue to commercialize, depending upon the stage of development at which such product commercialization rights reverted back to us, or additional payments if we license such product candidates to third parties;

the development of our product candidates subject to the AstraZeneca agreement, GSK agreement or Sanofi TOM:1px solid #000000">	54,502	109,004	0	172,966	$ 68.997	$ 8,042,670	
Jeremy D. Thigpen	2014	$ 52,000	$ 520,000	$ 1,040,000	7,944	15,888	31,
Joseph W. Rovig	2014	$ 44,000	$ 440,000	$ 880,000	4,885	9,770	19,
Craig L. Weinstock	2014	$ 38,250	$ 382,500	$ 765,000	0	0	
Scott K. Duff	2014	$ 27,000	$ 270,000	$ 540,000	0	0	
Dwight W. Rettig	2014	$ 48,000	$ 480,000	$ 960,000	7,944	15,888	31,
Robert W. Blanchard	2014	$ 30,000	$ 300,000	$ 600,000	4,885	9,770	19,

(1) Represents the range of possible payouts under our annual incentive compensation plan.

(2) On February 25, 2014, the Compensation Committee approved the 2014 Performance Share Award Grant. The performance share awards will be earned by the executives only by performance against established goals and vest three years from the grant date. The performance share awards are divided into two approximately equal, independent parts that are subject to two separate performance metrics: 50% in value based on the Company s TSR (total shareholder return) goal and 50% in value based on the Company s internal ROC goal (return on capital). The number of shares subject to equity awards and exercise price of option awards reflects the adjustments made on account of the spin-off of NOW Inc. on May 30, 2014.

(3) On February 25, 2014, the Compensation Committee approved a grant of restricted stock awards to these executive officers pursuant to the National Oilwell Varco, Inc. Long-Term Incentive Plan. The restricted stock awards granted by the Company to its executive officers vest 100% on the third anniversary of the date of grant,

provided that such executive officer remains continuously employed with the Company during such time period. The number of shares subject to equity awards and exercise price of option awards reflects the adjustments made on account of the spin-off of NOW Inc. on May 30, 2014.

(4) Assumptions made in calculating the value of option and restricted stock awards are further discussed in Item 15. Exhibits and Financial Statement Schedules Notes to Consolidated Financial Statements, Note 13, of the Company s Form 10-K for the fiscal year ended December 31, 2014. The grant date fair value of the restricted stock awards are as follows: Mr. Miller $4,902,280; Mr. Williams $3,959,930; Mr. Thigpen $1,157,570; Mr. Joseph W. Rovig $711,925; Mr. Craig L. Weinstock $164,626; Mr. Rettig $1,157,570; Mr. Scott K. Duff $164,626 and Mr. Blanchard $711,925. The grant date fair value of the option awards are as follows: Mr. Miller $5,055,078; Mr. Williams $4,082,739; Mr. Thigpen $1,053,440; Mr. Joseph W. Rovig $657,382; Mr. Craig L. Weinstock $324,634; Mr. Rettig $1,053,440; Mr. Scott K. Duff $324,634; and Mr. Blanchard $657,382.

(5) The stock options and performance share awards granted to Mr. Miller, after pro-ration, were converted to stock options and performance share awards of NOW Inc. in connection with the spin-off of the Company s distribution business on May 30, 2014.

Exercises and Holdings of Previously-Awarded Equity Disclosure

The following table provides information regarding outstanding awards that have been granted to Named Executive Officers where the ultimate outcomes of such awards have not been realized, as of December 31, 2014.

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Outstanding Equity Awards at Fiscal Year-End

	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)(1)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)(1)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Clay C. Williams		172,966(2)		$ 68.997	2/26/24				
	24,582	49,167(3)		$ 63.926	2/16/23				
	39,044	19,521(4)		$ 77.987	2/22/22				
	51,245			$ 73.579	2/23/21				
	66,895			$ 40.635	2/17/20				
	43,382			$ 59.159	2/20/18				
								20,335(5)	$ 1,332,553
								22,775(7)	$ 1,492,446
								26,214(8)	$ 1,717,803
								54,502(10)	$ 3,571,516
Jeremy D. Thigpen		44,629(2)		$ 68.997	2/26/24				
	14,876	29,753(3)		$ 63.926	2/16/23				

	20,967	10,484(4)	$ 77.987	2/22/22		
	17,569		$ 73.579	2/23/21		
	12,250		$ 40.635	2/17/20		
					10,953(5)	$ 717,750
					17,352(7)	$ 1,137,077
					15,888(8)	$ 1,041,141
					15,888(10)	$ 1,041,141
Joseph W. Rovig		27,850(2)	$ 68.997	2/26/24		
	2,292	4,584(3)	$ 63.926	2/16/23		
	4,150	2,075(4)	$ 77.987	2/22/22		
	6,149		$ 73.579	2/23/21		
					1,084(6)	$ 71,035
					1,193(9)	$ 78,177
					9,770(10)	$ 640,228
Craig L. Weinstock		13,753(2)	$ 68.997	2/26/24		
	4,584	9,169(11)	$ 72.657	10/2/23		
					2,386(13)	$ 156,355
					2,386(12)	$ 156,355
Scott K. Duff		13,753(2)	$ 68.997	2/26/24		
	0	9,168(3)	$ 63.926	2/16/23		
	8,300	4,150(4)	$ 77.987	2/22/22		
					2,169(6)	$ 142,135
					2,386(9)	$ 156,355
					2,386(12)	$ 156,355

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	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)(1)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Dwight W. Rettig		44,629(2)		$ 68.997	2/26/24				
	14,876	29,753(3)		$ 63.926	2/16/23				
	20,967	10,484(4)		$ 77.987	2/22/22				
	26,354			$ 73.579	2/23/21				
								10,953(5)	$ 717,750
								14,099(7)	$ 923,907
								15,888(8)	$ 1,041,141
								15,888(10)	$ 1,041,141
Robert W. Blanchard		27,850(2)		$ 68.997	2/26/24				
	0	18,567(3)		$ 63.926	2/16/23				
	0	8,423(4)		$ 77.987	2/22/22				
								8,784(5)	$ 575,616
								10,845(7)	$ 710,673
								9,770(8)	$ 640,228
								9,770(10)	$ 640,228

(1) Calculations based upon the closing price ($65.53) of the Company s common stock on December 31, 2014, the last trading day of the year. The number of shares subject to equity awards and exercise price of option awards reflects the adjustments made on account of the spin-off of NOW Inc. on May 30, 2014. The vesting schedule and expiration dates of these stock options remain unchanged.

(2) 2014 Stock Option Grant Stock options vest at the rate of 33 1/3%/year, with vesting dates of 2/25/2015, 2/25/2016 and 2/25/2017.

(3) 2013 Stock Option Grant Stock options vest at the rate of 33 1/3%/year, with vesting dates of 2/15/2014, 2/15/2015 and 2/15/2016.

(4) 2012 Stock Option Grant Stock options vest at the rate of 33 1/3%/year, with vesting dates of 2/21/13, 2/21/14 and 2/21/15.

(5) 2012 Performance-Vesting Restricted Stock Grant The grant vests 100% on the third anniversary of the date of grant, contingent on the Company s operating income growth, measured on a percentage basis, from January 1, 2012 to December 31, 2014 exceeding the median operating income growth for a designated peer group over the same period. One-time, non-recurring, non-operational gains or charges to income taken by the Company or any member of the designated peer group that are publicly reported would be excluded from the income calculation and comparison set forth above. If the Company s operating income growth does not exceed the median operating income growth of the designated peer group over the designated period, the applicable restricted stock award grant for the executives will not vest and would be forfeited.

(6) 2012 Grant of Restricted Stock Awards The restricted stock awards granted by the Company to its executive officers vest 100% on the third anniversary of the date of grant, provided that such executive officer remains continuously employed with the Company during such time period.

(7) 2013 Special Grant of Restricted Stock Awards The restricted stock awards granted by the Company to its executive officers vest 100% on the third anniversary of the date of grant, provided that such executive officer remains continuously employed with the Company during such time period.

(8) 2013 Performance Share Award Grant The performance share awards will be earned by the executives only by performance against established goals and vest three years from the grant date. The performance share awards are

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divided into two approximately equal, independent parts that are subject to two separate performance metrics: 50% in value based on the Company s TSR (total shareholder return) goal and 50% in value based on the Company s internal ROC goal (return on capital).

(9) 2013 Grant of Restricted Stock Awards The restricted stock awards granted by the Company to its executive officers vest 100% on the third anniversary of the date of grant, provided that such executive officer remains continuously employed with the Company during such time period.

(10) 2014 Performance Share Award Grant The performance share awards will be earned by the executives only by performance against established goals and vest three years from the grant date. The performance share awards are divided into two approximately equal, independent parts that are subject to two separate performance metrics: 50% in value based on the Company s TSR (total shareholder return) goal and 50% in value based on the Company s internal ROC goal (return on capital).

(11) 2013 Special Stock Option Grant to Mr. Weinstock upon his employment with the Company Stock options vest at the rate of 33 1/3%/year, with vesting dates of 10/1/2014, 10/1/2015 and 10/1/2016.

(12) 2014 Grant of Restricted Stock Awards The restricted stock awards granted by the Company to its executive officers vest 100% on the third anniversary of the date of grant, provided that such executive officer remains continuously employed with the Company during such time period.

(13) 2013 Special Grant of Restricted Stock Awards to Mr. Weinstock upon his employment with the Company The restricted stock awards granted by the Company to Mr. Weinstock vest 100% on the third anniversary of the date of grant, provided that Mr. Weinstock remains continuously employed with the Company during such time period.

The following table provides information on the amounts received by the Named Executive Officers during 2014 upon exercise of stock options or vesting of stock awards.

Option Exercises and Stock Vested

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)
(a)	(b)	(c)	(d)	(e)
Merrill A. Miller, Jr.	0	$ 0	23,800	$ 3,066,800
Clay C. Williams	0	$ 0	10,158	$ 1,309,000
Jeremy D. Thigpen	0	$ 0	5,224	$ 673,200
Joseph W. Rovig	0	$ 0	508	$ 52,360
Craig L. Weinstock	0	$ 0	0	$ 0
Scott K. Duff	17,323(1)	$ 118,394	1,056	$ 108,460
Dwight W. Rettig	0	$ 0	5,224	$ 673,200
Robert W. Blanchard	48,417(2)	$ 580,422	4,411	$ 568,480

(1) On June 17, 2014, Mr. Duff exercised 12,738 options from his 2011 grant at $73.579/share and 4,585 options from his 2013 grant at $63.926/share.
(2) On August 26, 2014, Mr. Blanchard exercised 22,287 options from his 2011 grant at $73.579/share, 16,847 options from his 2012 grant at $77.987/share and 9,283 options from his 2013 grant at $63.926/share.

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Post-Employment Compensation

The following table provides information on nonqualified deferred compensation provided under the Supplemental Plan to the Named Executive Officers during the fiscal year ended December 31, 2014. For a more detailed discussion, see the section titled Compensation Discussion and Analysis Retirement, Health and Welfare Benefits .

Nonqualified Deferred Compensation

Name	Executive Contributions in Last FY ($)(1)	Registrant Contributions in Last FY ($)(2)	Aggregate Earnings in Last FY ($)(3)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at Last FYE ($)
(a)	(b)	(c)	(d)	(e)	(f)
Merrill A. Miller, Jr.	$ 0.00	$ 6,100.00	$ 36,952.30	$ 0.00	$ 396,451.01
Clay C. Williams	$ 0.00	$ 24,446.23	$ 136,428.94	$ 0.00	$ 1,154,940.69
Jeremy D. Thigpen	$ 0.00	$ 15,600.00	$ 7.50	$ 0.00	$ 82,899.21
Joseph W. Rovig	$ 86,884.55	$ 19,114.17	-$ 27,186.74	$ 0.00	$ 1,161,584.95
Craig L. Weinstock	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Scott K. Duff	$ 0.00	$ 931.57	$ 10,749,23	$ 0.00	$ 321,681.21
Dwight W. Rettig	$ 0.00	$ 8,636.53	$ 8.52	$ 0.00	$ 85,737.33
Robert W. Blanchard	$ 0.00	$ 0.00	$ 4,005.29	$ 11,953.33	$ 1,008,275.59

(1) Executive contributions were from the executive s salary and are included in the Summary Compensation Table under the Salary column.
(2) Registrant contributions are included in the Summary Compensation Table under the All Other Compensation column.
(3) Aggregate earnings reflect the returns of the investment funds selected by the executives and are not included in the Summary Compensation Table.

Certain Relationships and Related Transactions

We transact business with companies with which certain of our Directors are affiliated. All transactions with these companies are on terms competitive with other third party vendors, and none of these is material either to us or any of these companies.

A conflict of interest occurs when a director or executive officer s private interest interferes in any way, or appears to interfere, with the interests of the Company. Conflicts of interest can arise when a director or executive officer, or a member of his or her immediate family, have a direct or indirect material interest in a transaction with us. Conflicts of interest also arise when a director or executive officer, or a member of his or her immediate family, receives improper personal benefits as a result of his or her position as a director or executive officer of the Company. The Company s Code of Business Conduct and Ethics for Members of the Board of Directors and Executive Officers provides that

directors and executive officers must avoid conflicts of interests with the Company. Any situation that involves, or may reasonably be expected to involve, a conflict of interest with the Company must be disclosed immediately to the Chair of the Company s Audit Committee for his review and approval or ratification. This code also provides that the Company shall not make any personal loans or extensions of credit to nor become contingently liable for any indebtedness of directors or executive officers or a member of his or her family.

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DIRECTOR COMPENSATION

Directors who are employees of the Company do not receive compensation for serving on the Board of Directors. The following table sets forth the compensation paid by the Company to its non-employee members of the Board of Directors for the year ended December 31, 2014.

Director Compensation

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
(a)	(b)	(c)(1)	(d)(2)	(e)	(f)	(g)	(h)
Greg L. Armstrong	$ 117,500	$ 175,025					$ 292,525
Robert E. Beauchamp	$ 104,000	$ 175,025					$ 279,025
Marcela E. Donadio	$ 50,000	$ 175,025					$ 225,025
Ben A. Guill	$ 99,750	$ 175,025					$ 274,775
David D. Harrison	$ 122,500	$ 175,025					$ 297,525
Roger L. Jarvis	$ 93,750	$ 175,025					$ 268,775
Eric L. Mattson	$ 102,500	$ 175,025					$ 277,525
Jeffery A. Smisek	$ 106,500	$ 175,025					$ 281,525

(1) The aggregate number of outstanding shares of restricted stock as of December 31, 2014 for each director are as follows: Mr. Armstrong 5,003; Mr. Beauchamp 5,003; Ms. Donadio 2,342; Mr. Guill 5,003; Mr. Harrison 5,003; Mr. Jarvis 5,003; Mr. Mattson 5,003; and Mr. Smisek 5,003.

(2) The aggregate number of outstanding stock options as of December 31, 2014 for each director are as follows: Mr. Armstrong 59,331; Mr. Beauchamp 53,908; Ms. Donadio 0; Mr. Guill 0; Mr. Harrison 51,331; Mr. Jarvis 59,331; Mr. Mattson 43,063; and Mr. Smisek 48,125.

Board Compensation

Members of the Company s Board of Directors who are not full-time employees of the Company receive the following cash compensation:

For service on the Board of Directors an annual retainer of $75,000, paid quarterly;

For service as chairperson of the audit committee of the Board of Directors an annual retainer of $30,000, paid quarterly;

For service as chairperson of the compensation committee of the Board of Directors an annual retainer of $15,000, paid quarterly;

For service as chairperson of the nominating/corporate governance committee of the Board of Directors an annual retainer of $10,000, paid quarterly;

For service as a member of the audit committee of the Board of Directors an annual retainer of $10,000, paid quarterly;

For service as a member of the compensation committee of the Board of Directors an annual retainer of $7,500, paid quarterly;

For service as a member of the nominating/corporate governance committee of the Board of Directors an annual retainer of $5,000, paid quarterly; and

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$1,500 for each Board meeting and each committee meeting attended.
The Lead Director receives an annual retainer of $25,000, paid quarterly.

Directors of the Board who are also employees of the Company do not receive any compensation for their service as directors.

Members of the Board are also eligible to receive stock options and awards, including restricted stock, performance awards, phantom shares, stock payments, or SARs under the National Oilwell Varco Long-Term Incentive Plan.

The Board approved the grant of 2,342 shares of restricted stock awards on May 14, 2014 to each non-employee director under the National Oilwell Varco Long-Term Incentive Plan. The restricted stock award shares vest 100% on the first anniversary of the date of the grant.

Stock Ownership Guidelines

Under the Company s stock ownership guidelines, each non-employee director must own Company stock equal to six times the directors annual cash retainer. For a discussion of the types of shares that count towards the ownership guidelines, please read Compensation Discussion and Analysis Stock Ownership Guidelines for Executives . All of the Company s non-employee directors are currently in compliance with the Company s stock ownership guidelines.

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SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

The rules of the SEC require that the Company disclose late filings of reports of stock ownership (and changes in stock ownership) by its directors, executive officers, and beneficial owners of more than ten percent of the Company s stock. The Company has undertaken responsibility for preparing and filing the stock ownership forms required under Section 16(a) of the Securities and Exchange Act of 1934, as amended, on behalf of its officers and directors. Based upon a review of forms filed and information provided by the Company s officers and directors, we believe that all Section 16(a) reporting requirements were met during 2014, except that Mr. Thigpen failed to timely file three reports covering these transactions.

STOCKHOLDER PROPOSALS FOR THE 2015 ANNUAL MEETING

If you wish to submit proposals to be included in our 2015 Proxy Statement, we must receive them on or before December 12, 2015. Please address your proposals to: **Craig L. Weinstock, Senior Vice President, General Counsel and Secretary, National Oilwell Varco, Inc., 7909 Parkwood Circle Drive, Houston, Texas 77036**.

If you wish to submit proposals at the meeting that are not eligible for inclusion in the Proxy Statement, you must give written notice no later than January 11, 2016 to: **Craig L. Weinstock, Senior Vice President, General Counsel and Secretary, National Oilwell Varco, Inc., 7909 Parkwood Circle Drive, Houston, Texas 77036**. If you do not comply with this notice provision, the proxy holders will be allowed to use their discretionary voting authority on the proposal when it is raised at the meeting. In addition, proposals must also comply with National Oilwell Varco s bylaws and the rules and regulations of the SEC.

ANNUAL REPORT AND OTHER MATTERS

At the date this Proxy Statement went to press, we did not know of any other matters to be acted upon at the meeting other than the election of directors, ratification of the appointment of independent auditors, and approval on an advisory basis of the compensation of our named executive officers, as discussed in this Proxy Statement. If any other matter is presented, proxy holders will vote on the matter in accordance with their best judgment.

National Oilwell Varco s 2014 Annual Report on Form 10-K filed on February 17, 2015 is included in this mailing, but is not considered part of the proxy solicitation materials.

By order of the Board of Directors,

/s/ Craig L. Weinstock

Craig L. Weinstock

Senior Vice President, General Counsel and

Secretary

Houston, Texas

April 10, 2015

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NATIONAL OILWELL VARCO, INC.

7909 PARKWOOD CIRCLE

ATTN: LEGAL DEPT - 7TH FLOOR

HOUSTON, TX 77036

VOTE BY INTERNET - www.proxyvote.com
Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS
If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903
Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL
Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: KEEP THIS PORTION FOR YOUR RECORDS

DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote FOR the following:

1. Election of Directors	**For**	**Against**	**Abstain**
1A Clay C. Williams	..	..	..
1B Greg L. Armstrong	..	..	..

	For	**Against**	**Abstain**

1C Robert E. Beauchamp	..	..	..
1D Marcela E. Donadio	..	..	..
1E Ben A. Guill	..	..	..
1F David D. Harrison	..	..	..
1G Roger L. Jarvis	..	..	..
1H Eric L. Mattson	..	..	..
1I Jeffery A. Smisek	..	..	..

3. Approve, by non-binding vote, the compensation of our named executive officers: .. .. ..

NOTE: Such other business as may properly come before the meeting or any adjournment thereof.

The Board of Directors recommends you vote FOR proposals 2, and 3. :	**For**	**Against**	**Abstain**
2. Ratification of Independent Auditors:	..	..	..

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name, by authorized officer.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The NPS & 10k is/are available at www.proxyvote.com.

NATIONAL OILWELL VARCO, INC.

PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

FOR THE ANNUAL MEETING OF STOCKHOLDERS

ON MAY 13, 2015

The undersigned hereby appoints Jeremy D. Thigpen and Craig L. Weinstock or either of them with full power of substitution, the proxy or proxies of the undersigned to attend the Annual Meeting of Stockholders of National Oilwell Varco, Inc. to be held on Wednesday, May 13, 2015, and any adjournments thereof, and to vote the shares of stock that the signer would be entitled to vote if personally present as indicated on the reverse side and, at their discretion, on any other matters properly brought before the meeting, and any adjournments thereof, all as set forth in the April 10, 2015 proxy statement.

This proxy is solicited on behalf of the board of directors of National Oilwell Varco, Inc. The shares represented by this proxy will be voted as directed by the Stockholder. If no direction is given when the duly executed proxy is returned, such shares will be voted in accordance with the recommendations of the board of directors FOR all director nominees (Proposal 1), FOR the ratification of the independent auditors (Proposal 2), and FOR the approval of the compensation of our named executive officers (Proposal 3).

The undersigned acknowledges receipt of the April 10, 2015 Notice of Annual Meeting and the Proxy Statement, which more particularly describes the matters referred to herein.

Continued and to be signed on reverse side