

LUNA INNOVATIONS INC  
Form 10-Q  
May 14, 2015  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM 10-Q

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

For the quarterly period ended March 31, 2015

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 000-52008

LUNA INNOVATIONS INCORPORATED  
(Exact name of registrant as specified in its charter)

Delaware  
(State or Other Jurisdiction of  
Incorporation or Organization)  
301 First Street SW, Suite 200  
Roanoke, VA 24011  
(Address of Principal Executive Offices)  
(540) 769-8400  
(Registrant’s Telephone Number, Including Area Code)  
One Riverside Circle, Suite 400  
Roanoke, VA 24016  
(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

54-1560050  
(I.R.S. Employer  
Identification Number)

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  
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  No  
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

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

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

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.  Yes  No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: As of May 8, 2015, there were 26,968,365 shares of the registrant's common stock outstanding.

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FOR THE QUARTER ENDED MARCH 31, 2015  
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## PART I. FINANCIAL INFORMATION

## ITEM 1. FINANCIAL STATEMENTS

Luna Innovations Incorporated  
Consolidated Balance Sheets

	December 31, 2014	March 31, 2015 (unaudited)
Assets		
Current assets:		
Cash and cash equivalents	\$14,116,969	\$13,296,415
Accounts receivable, net	5,689,615	4,817,836
Inventory, net	3,364,233	3,807,294
Prepaid expenses	523,553	425,133
Other current assets	191,749	221,411
Total current assets	23,886,119	22,568,089
Property and equipment, net	3,497,057	3,379,214
Intangible assets, net	199,277	181,491
Other assets	1,995	1,995
Total assets	\$27,584,448	\$26,130,789
Liabilities and stockholders' equity		
Liabilities:		
Current liabilities:		
Current portion of long-term debt obligation	\$625,000	\$250,000
Current portion of capital lease obligation	70,725	66,492
Accounts payable	1,447,177	2,266,437
Accrued liabilities	3,965,945	4,522,346
Deferred revenue	861,081	811,918
Total current liabilities	6,969,928	7,917,193
Long-term deferred rent	1,570,377	1,536,067
Long-term capital lease obligation	39,582	26,529
Total liabilities	8,579,887	9,479,789
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value \$ 0.001, 1,321,514 shares authorized, issued and outstanding at December 31, 2014 and March 31, 2015	1,322	1,322
Common stock, par value \$ 0.001, 100,000,000 shares authorized, 15,110,924 and 15,117,744 shares issued, 15,088,199 and 15,095,017 shares outstanding at December 31, 2014 and March 31, 2015	15,541	15,567
Less treasury stock at cost, 22,725 shares at December 31, 2014 and March 31, 2015	(32,221)	(32,221)
Additional paid-in capital	64,147,666	64,447,793
Accumulated deficit	(45,127,747)	(47,781,461)
Total stockholders' equity	19,004,561	16,651,000
Total liabilities and stockholders' equity	\$27,584,448	\$26,130,789

The accompanying notes are an integral part of these consolidated financial statements.



Table of ContentsLuna Innovations Incorporated  
Consolidated Statements of Operations

	Three Months Ended March 31,	
	2014	2015
	(unaudited)	
Revenues:		
Technology development revenues	\$2,675,452	\$2,875,515
Products and licensing revenues	1,796,429	2,463,587
Total revenues	4,471,881	5,339,102
Cost of revenues:		
Technology development costs	2,025,155	2,083,624
Products and licensing costs	894,640	966,689
Total cost of revenues	2,919,795	3,050,313
Gross profit	1,552,086	2,288,789
Operating expense:		
Selling, general and administrative	2,755,078	4,569,107
Research, development and engineering	749,154	334,891
Total operating expense	3,504,232	4,903,998
Operating loss	(1,952,146 )	(2,615,209 )
Other income/(expense):		
Other income, net	82,106	—
Interest expense	(32,365 )	(9,137 )
Total other income/(expense)	49,741	(9,137 )
Loss from continuing operations, before income taxes	(1,902,405 )	(2,624,346 )
Income tax (benefit)/expense	(769,190 )	2,808
Net loss from continuing operations	(1,133,215 )	(2,627,154 )
Income from discontinued operations, net of income taxes	9,673,439	—
Net income/(loss)	8,540,224	(2,627,154 )
Preferred stock dividend	29,536	26,560
Net income/(loss) attributable to common stockholders	\$8,510,688	\$(2,653,714)
Net loss per share from continuing operations:		
Basic and diluted	\$(0.08 )	\$(0.17 )
Net income per share from discontinued operations:		
Basic and diluted	\$0.66	\$—
Net income/(loss) per share attributable to common stockholders:		
Basic and diluted	\$0.58	\$(0.18 )
Weighted average common shares and common equivalent shares outstanding:		
Basic and diluted	14,653,262	15,117,679

The accompanying notes are an integral part of these consolidated financial statements.

Table of ContentsLuna Innovations Incorporated  
Consolidated Statements of Cash Flows

	Three Months Ended March 31,	
	2014	2015
	(unaudited)	
Cash flows used in operating activities		
Net income/(loss)	\$8,540,224	\$(2,627,154 )
Adjustments to reconcile net income/(loss) to net cash used in operating activities		
Depreciation and amortization	202,305	165,081
Share-based compensation	230,939	271,077
Gain on sale of discontinued operations, net of income taxes	(9,701,515 )	—
Tax benefit from utilization of loss from current year operations	(787,318 )	—
Change in assets and liabilities		
Accounts receivable	896,194	871,779
Inventory	13,314	(443,061 )
Other current assets	112,286	68,758
Other assets	18,792	—
Accounts payable and accrued expenses	(821,763 )	1,341,352
Deferred revenue	(138,593 )	(49,163 )
Net cash used in operating activities	(1,435,135 )	(401,331 )
Cash flows provided by/(used in) investing activities		
Acquisition of property and equipment	(67,944 )	(18,321 )
Intangible property costs	(126,091 )	(11,131 )
Proceeds from sale of discontinued operations, net of fees	4,958,891	—
Net cash provided by/(used in) investing activities	4,764,856	(29,452 )
Cash flows used in financing activities		
Payments on capital lease obligations	(16,282 )	(17,286 )
Payment of debt obligations	(375,000 )	(375,000 )
Proceeds from the exercise of options	169,035	2,515
Net cash used in financing activities	(222,247 )	(389,771 )
Net increase/(decrease) in cash and cash equivalents	3,107,474	(820,554 )
Cash and cash equivalents—beginning of period	7,778,541	14,116,969
Cash and cash equivalents—end of period	\$10,886,015	\$13,296,415
Supplemental disclosure of cash flow information		
Cash paid for interest	\$30,000	\$7,583
Dividend on preferred stock, 19,823 shares of common stock issuable for the three months ended March 31, 2014 and 2015	\$29,536	\$26,560
Cash paid for income taxes	\$—	\$2,808

The accompanying notes are an integral part of these consolidated financial statements.

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Luna Innovations Incorporated  
Notes to Unaudited Consolidated Financial Statements

1. Basis of Presentation and Significant Accounting Policies

Nature of Operations

Luna Innovations Incorporated (“we,” “Luna Innovations” or the “Company”) is incorporated in the State of Delaware and headquartered in Roanoke, Virginia. We develop, manufacture and market fiber optic sensing, test and measurement products and are focused on bringing new and innovative technology solutions to measure, monitor, protect and improve critical processes in the aerospace, automotive, energy, composite, telecommunications and defense industries. We are organized into two business segments, which work closely together to turn ideas into products: our Technology Development segment and our Products and Licensing segment. Our business model is designed to accelerate the process of bringing new and innovative technologies to market. We have a history of net losses from continuing operations beginning in 2005. We have historically managed our liquidity through cost reduction initiatives, debt financings, capital market transactions and asset sales.

Although there can be no guarantees, we believe that our current cash balance will provide adequate liquidity for us to meet our working capital needs over the next twelve months.

Unaudited Interim Financial Information

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and Article 10 of Regulation S-X of the Securities Exchange Act of 1934. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for annual financial statements. The unaudited consolidated financial statements have been prepared on the same basis as the annual financial statements and in the opinion of management reflect all adjustments, consisting of only normal recurring accruals considered necessary to present fairly our financial position at March 31, 2015, results of operations for the three months ended March 31, 2014 and 2015, and cash flows for the three months ended March 31, 2014 and 2015. The results of operations for the three months ended March 31, 2015 are not necessarily indicative of the results that may be expected for the year ending December 31, 2015.

The consolidated interim financial statements, including our significant accounting policies, should be read in conjunction with the audited Consolidated Financial Statements and the notes thereto for the year ended December 31, 2014, included in the Company’s Annual Report on Form 10-K as filed with the Securities and Exchange Commission (“SEC”) on March 16, 2015.

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between marketplace participants. Various valuation approaches can be used to determine fair value, each requiring different valuation inputs. The following hierarchy classifies the inputs used to determine fair value into three levels:

Level 1—Quoted prices for identical instruments in active markets

Level 2—Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets

Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable

The carrying values of cash and cash equivalents, accounts receivable and accounts payable approximate fair value because of the short-term nature of these instruments. The carrying value of our debt approximates fair value, as we consider the floating interest rate on our credit facilities with Silicon Valley Bank to be at market. Certain nonfinancial assets and liabilities are measured at fair value on a nonrecurring basis in accordance with U.S. GAAP. This includes items such as nonfinancial assets and liabilities initially measured at fair value in a business combination and nonfinancial long-lived asset groups measured at fair value for an impairment assessment. In general, nonfinancial assets including intangible assets and property and equipment are measured at fair value when there is an indication of



impairment and are recorded at fair value only when any impairment is recognized.

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### Net loss Per Share

Basic per share data is computed by dividing loss from continuing operations by the weighted average number of shares outstanding during the period. Diluted per share data is computed by dividing income from continuing operations, if applicable, by the weighted average shares outstanding during the period increased to include, if dilutive, the number of additional common share equivalents that would have been outstanding if potential shares of common stock had been issued using the treasury stock method. Diluted per share data would also include the potential common share equivalents relating to convertible securities by application of the if-converted method. The effect of 2.8 million and 2.5 million common stock equivalents (which include outstanding warrants, preferred stock and stock options) are not included for the quarters ended March 31, 2014 and 2015, respectively, as they are antidilutive to earnings per share due to the Company having a net loss from continuing operations.

### Recently Issued Accounting Pronouncements

In April 2015, the Financial Accounting Standards Board (“FASB”) issued guidance which requires debt issuance costs to be presented on the balance sheet as a direct deduction from the associated debt liability. The guidance is effective for annual reporting periods and interim periods within those annual reporting periods beginning after December 15, 2015. Early adoption is permitted. We are currently evaluating the impact this guidance will have on our consolidated financial statements.

In May 2014, the FASB issued Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers (Topic 606)”. ASU No. 2014-09 supersedes the revenue recognition requirements in “Revenue Recognition (Topic 605)”. ASU No. 2014-09 requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. ASU No. 2014-09 is currently scheduled to be effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. ASU No. 2014-09 provides for either full retrospective adoption or a modified retrospective adoption by which it is applied only to the most current period presented. Early adoption is not permitted. In April 2015, the FASB issued a proposal that would defer ASU No. 2014-09 by one year, but it would permit all entities to adopt the standard as of the original effective date. We are currently in the process of evaluating the impact of the adoption of ASU No. 2014-09 on our consolidated financial statements.

## 2. Discontinued Operations

On January 21, 2014, we completed the sale of our medical shape sensing business, which was part of our Products and Licensing segment, to an unaffiliated third party for a gross sales price of up to \$30.0 million, of which \$12.0 million in cash has been received, up to \$8.0 million is payable to us in the future upon the accomplishment by the buyer of certain technical specifications, and up to \$10.0 million is payable to us in potential future royalties. We had been engaged since 2007 in various development projects developing a fiber optic-based shape sensing and position tracking system to be integrated in the buyer's products. Also as part of the transaction, the buyer has hired certain employees of the company, many of whom were historically engaged in this development project. In connection with this sale, we incurred approximately \$1.3 million in transaction costs that included various charges related to investment banker and legal fees and a bonus to a former employee who was hired by the buyer. Included in the transaction were current and long term assets with a net book value of approximately \$0.3 million on January 20, 2014.

We have reported the results of operations of our medical shape sensing business as discontinued operations in our consolidated financial statements. We allocated a portion of the consolidated tax expense to discontinued operations based on the ratio of the discontinued groups' income before allocations.

The key components of income from discontinued operations were as follows:



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	Three Months Ended	
	March 31, 2014	March 31, 2015
Net revenues	\$—	\$—
Cost of revenues	46,204	—
Operating expenses	—	—
Loss before income taxes	(46,204	) —
Allocated tax benefit	(18,128	) —
Operating loss from discontinued operations, net of income taxes	(28,076	) —
Gain on sale, net of \$1.0 million of related income taxes	9,701,515	—
Income from discontinued operations, net of income taxes	\$9,673,439	\$—

## 3. Inventory

Inventory consists of finished goods, work-in-process and raw materials valued at the lower of cost (determined on the first-in, first-out basis) or market. We provide reserves for estimated obsolescence or unmarketable inventory equal to the difference between the cost of the inventory and the estimated market value based upon assumptions about future demand and market conditions.

Components of inventory are as follows:

	December 31, 2014	March 31, 2015
Finished goods	\$580,184	\$669,842
Work-in-process	262,025	331,549
Raw materials	2,522,024	2,805,903
Total inventory, net	\$3,364,233	\$3,807,294

## 4. Accrued Liabilities

	December 31, 2014	March 31, 2015
Accrued compensation	\$2,362,608	\$2,771,186
Accrued sub-contracts	244,218	270,693
Accrued professional fees	177,712	716,824
Accrued income tax	166,550	8,820
Deferred rent	182,340	159,498
Royalties	392,945	179,086
Warranty reserve	69,264	67,325
Accrued liabilities - other	370,308	348,914
Total accrued liabilities	\$3,965,945	\$4,522,346

## 5. Debt

## Silicon Valley Bank Facility

We currently have a Loan and Security Agreement with Silicon Valley Bank (“SVB”) under which we have a term loan with an original borrowing amount of \$6.0 million (the “Term Loan” or “Credit Facility”). Prior to the amendment to the Credit Facility in connection with our merger with Advanced Photonix, Inc., (“API”) as described below, the Term Loan was to be repaid by us in 48 monthly installments, plus accrued interest payable monthly in arrears, and unless earlier terminated, was scheduled to mature on May 1, 2015. The Term Loan carried a floating annual interest rate equal to SVB’s prime rate then in effect plus 2%. We were permitted to repay amounts due under the Term Loan at any time with no penalties.



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In addition to the terms and conditions of the Term Loan, we had a revolving line of credit (the “Line of Credit”), which had a maximum borrowing capacity of \$1.0 million. The Line of Credit matured on May 18, 2014 and was not renewed.

Amounts due under the Credit Facility are secured by substantially all of our assets, including intellectual property, personal property and bank accounts.

On March 21, 2013, we entered into a Fourth Loan Modification Agreement with SVB that replaced the existing financial covenants with a single covenant that we maintain a minimum cash balance of \$5.0 million with SVB. Effective on January 21, 2014, in connection with our sale of assets to Intuitive, this covenant was modified to reduce the required minimum cash balance to \$3.5 million. The Credit Facility also requires us to observe a number of operational covenants, including protection and registration of intellectual property rights, and certain customary negative covenants. As of March 31, 2015, we were in compliance with all covenants under the Credit Facility.

In addition, the Credit Facility contains customary events of default, including nonpayment of principal, interest or other amounts, violation of covenants, material adverse change, an event of default under any subordinated debt documents, incorrectness of representations and warranties in any material respect, bankruptcy, judgments in excess of a threshold amount, and violations of other agreements in excess of a threshold amount. If any event of default occurs SVB may declare due immediately all borrowings under the Credit Facility and foreclose on the collateral. Furthermore, an event of default under the Credit Facility would result in an increase in the interest rate on any amounts outstanding. As of March 31, 2015, there were no events of default on the Credit Facility.

The balance under the Term Loan at December 31, 2014 and March 31, 2015, was \$0.6 million and \$0.3 million, respectively, all of which was classified as short-term. The effective rate of our Term Loan at March 31, 2015 was 6%.

The following table presents a summary of debt outstanding as of December 31, 2014 and March 31, 2015:

	December 31, 2014	March 31, 2015
Silicon Valley Bank Term Loan	\$625,000	\$250,000
Less: current portion	625,000	250,000
Total long-term debt	\$—	\$—

Costs associated with loans outstanding were as follows:

	Three months ended March 31,	
	2014	2015
Interest expense	30,000	7,622
Amortization of transaction costs	2,573	1,568
Total interest expense	32,573	9,190

In connection with our merger with API (See Note 9, “Subsequent Events”), on May 8, 2015, we entered into the Sixth Loan Modification Agreement with SVB, under which we received a new term loan in the amount of \$6.0 million, payable in 48 monthly installments and bearing interest at a floating rate of prime plus 2%. Amounts due under the new term loan continue to be secured by substantially all of our assets, including the assets of API, as well as our intellectual property, personal property and bank accounts. We used the proceeds of the new term loan to repay all amounts then outstanding under the prior Term Loan, as well as all of API’s outstanding indebtedness as of the completion of the merger.

## 6. Capital Stock and Additional Paid-in Capital

We recognize share-based compensation expense based upon the fair value of the underlying equity award on the date of the grant. For restricted stock awards and restricted stock units, we recognize expense based upon the price of our underlying stock at the date of the grant. We have elected to use the Black-Scholes option pricing model to value any option or warrant awards granted. We amortize share-based compensation for such awards on a straight-line basis over the related service period of the awards taking into account the effects of the employees’ expected exercise and

post-vesting employment termination behavior. To compute the volatility used in this model we use the historical volatility of our common stock over the expected life of options granted. The risk-free interest rate is based on U.S. Treasury interest rates, the terms of which are consistent with the expected life of the stock options. The expected life and estimated post-employment termination behavior is based upon

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historical experience of homogeneous groups within our company. We also assume an expected dividend yield of zero for all periods, as we have never paid a dividend on our common stock and do not have any plans to do so in the future.

The fair value of each option granted during the three months ended March 31, 2015 and 2014 was estimated as of the grant date using the Black-Scholes option pricing model with the following assumptions:

	Three Months Ended March 31,	
	2014	2015
Risk-free interest rate	2.14%	1.88%
Expected life of options (in years)	7.5	7.5
Expected stock price volatility	106%	103%
Executive turnover rates	—%	—%
Non-executive turnover rates	33.6%	40.0%
Expected dividend yield	—%	—%

A summary of the activity for our 2003 Stock Plan and 2006 Equity Incentive Plan is presented below for the three months ended March 31, 2015:

	Options Outstanding			Aggregate Intrinsic Value (1)	Options Exercisable		
	Number of Shares	Price per Share Range	Weighted Average Exercise Price		Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value (1)
Balance, January 1, 2015	4,289,631	\$0.35 - \$6.55	\$1.93	\$512,901	3,111,199	\$2.11	\$453,032
Granted	32,250	\$1.45	\$1.45				
Exercised	4,577	\$1.59 - \$174	\$1.34				
Canceled	4,313	\$0.35 - \$2.15	\$0.38				
Balance, March 31, 2015	4,312,991	\$0.35 - \$6.55	\$1.93	\$533,715	3,253,115	\$2.08	\$470,695

The intrinsic value of an option represents the amount by which the market value of the stock exceeds the exercise (1)price of the option of in-the-money options only. The aggregate intrinsic value is based on the closing price of our common stock on the NASDAQ Capital Market, as applicable, on the respective dates.

At March 31, 2015, the outstanding stock options to purchase an aggregate of 4.3 million shares had a weighted-average remaining contractual term of 5.8 years, and the exercisable stock options to purchase an aggregate of 3.3 million shares had a weighted-average remaining contractual term of 4.9 years.

For the three months ended March 31, 2014 and 2015, we recognized \$0.2 million and \$0.3 million in share-based compensation expense, respectively, which is included in our selling, general and administrative expense in the accompanying consolidated financial statements. We expect to recognize \$1.3 million in share-based compensation expense over the weighted-average remaining service period of 1.3 years for stock options outstanding as of March 31, 2015.

The following table summarizes our restricted stock awards:

	Number of Vested Shares	Number of Unvested Shares	Weighted Average Grant Date Fair Value	Aggregate Value of Vested Shares	Aggregate Value of Unvested Shares
Balance at January 1, 2015	128,663	528,000	\$1.36	183,115	707,700
Granted	—	—	\$—	—	—
Vested	112,500	(112,500	)\$1.26	141,750	(141,750



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Exercised	—	—	\$—	—	—
Balance at March 31, 2015	241,163	415,500	\$1.36	324,865	565,950

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The following details our equity transactions during the three months ended March 31, 2015:

	Preferred Stock		Common Stock		Treasury Stock		Additional
	Shares	\$	Shares	\$	Shares	\$	Paid-in Capital \$
Balance, December 31, 2014	1,321,514	1,322	15,088,199	15,541	22,725	(32,221)	64,147,666
Exercise of stock options	—	—	6,818	7	—	—	2,508
Share-based compensation	—	—	—	—	—	—	220,814
Non-cash compensation	—	—	—	—	—	—	50,264
Stock dividends to Carilion Clinic(1)	—	—	—	19	—	—	26,541
Purchase of treasury stock	—	—	—	—	—	—	—
Balance, March 31, 2015	1,321,514	1,322	15,095,017	15,567	22,725	(32,221)	64,447,793

The stock dividends payable in connection with Carilion Clinic's Series A Preferred Stock will be issued subsequent to March 31, 2015. For the period from January 12, 2010, the original issue date of the Series A (1)Preferred Stock, through March 31, 2015, the Series A Preferred Stock issued to Carilion has accrued \$898,914 in dividends. The accrued and unpaid dividends as of March 31, 2015 will be paid by the issuance of 412,560 shares of our common stock upon Carilion's written request.

#### 7. Operating Segments

Our operations are divided into two operating segments—"Technology Development" and "Products and Licensing". The Technology Development segment provides applied research to customers in our areas of focus. Our engineers and scientists collaborate with our network of government, academic and industry experts to identify technologies and ideas with promising market potential. We then compete to win fee-for-service contracts from government agencies and industrial customers who seek innovative solutions to practical problems that require new technology. The Technology Development segment derives its revenues primarily from services.

The Products and Licensing segment derives its revenues from product sales, funded product development and technology licenses. This segment previously included our medical shape sensing business, which was sold on January 21, 2014, and the amounts below do not include the revenues, expenses and assets of our medical shape sensing business.

Through March 31, 2015, our Chief Executive Officer and his direct reports collectively represented our chief operating decision makers, and they evaluated segment performance based primarily on revenues and operating income or loss. The accounting policies of our segments are the same as those described in the summary of significant accounting policies (see Note 1 to our Financial Statements, "Organization and Summary of Significant Accounting Policies," presented in our Annual Report on Form 10-K as filed with the SEC on March 16, 2015).

The table below presents revenues and operating loss for reportable segments not including discontinued operations:

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	Three Months Ended March 31, 2014      2015 (unaudited)	
Revenues:		
Technology development revenues	\$2,675,452	\$2,875,515
Products and licensing revenues	1,796,429	2,463,587
Total revenues	\$4,471,881	\$5,339,102
Technology development operating loss	\$(1,527,646)	\$(259,486 )
Products and licensing operating loss	(424,500 )	(2,355,723 )
Total operating loss	\$(1,952,146)	\$(2,615,209)
Depreciation, technology development	\$56,743	\$73,335
Depreciation, products and licensing	\$38,100	\$62,829
Amortization, technology development	\$64,293	\$15,573
Amortization, products and licensing	\$43,169	\$13,343

The table below presents assets for reportable segments:

	December 31, 2014	March 31, 2015
Total segment assets:		
Technology development	\$16,503,316	\$14,073,430
Products and licensing	11,081,132	12,057,359
Total	\$27,584,448	\$26,130,789
Property plant and equipment, and intangible assets, technology development	\$2,122,157	\$1,917,712
Property plant and equipment, and intangible assets, products and licensing	\$1,574,177	\$1,642,993

There are no material inter-segment revenues for any period presented.

The United States Government accounted for approximately 58% and 62% of total consolidated revenues for the three months ended March 31, 2015 and 2014, respectively.

International revenues (customers outside the United States) accounted for approximately 14% and 19% of total consolidated revenues for the three months ended March 31, 2015 and 2014, respectively.

#### 8. Contingencies and Guarantees

We are from time to time involved in certain legal proceedings in the ordinary course of conducting our business. While the ultimate liability pursuant to these actions cannot currently be determined, we believe these legal proceedings will not have a material adverse effect on our financial position or results of operations.

In the fourth quarter of 2013 we executed two non-cancelable purchase orders totaling \$1.4 million for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in 2013. At March 31, 2015, approximately \$0.2 million of this commitment remained.

In September 2014, we received a preliminary audit report from the Defense Contract Audit Agency (the "DCAA"), with respect to our 2007 incurred cost submission and questioning \$0.8 million of claimed costs that the DCAA believes are expressly unallowable under the Federal Acquisition Regulations and, therefore, subject to potential penalty. We have not been informed of any actual claim for penalty by the Defense Contract Management Agency and intend to contest such claim if received.

We have entered into indemnification agreements with our officers and directors, to the extent permitted by law, pursuant to which we have agreed to reimburse the officers and directors for legal expenses in the event of litigation and regulatory

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matters. The terms of these indemnification agreements provide for no limitation to the maximum potential future payments. We have a directors and officers insurance policy that may, in certain instances, mitigate the potential liability and payments.

9. Subsequent Events

On January 30, 2015, we entered into an agreement to merge with API, subject to approval by the stockholders of both companies and customary closing conditions. API is a leading test and measurement company that packages optoelectronic semiconductors into high-speed optical receivers, custom optoelectronic subsystems and Terahertz instrumentation, serving the test and measurement, telecommunications, military/aerospace and medical markets. On May 8, 2015, our stockholders and API's stockholders approved the merger, and the merger was completed. In the merger API stockholders received 0.31782 shares of our common stock for each outstanding share of API common stock they owned as of the effective time of the merger.

The statements presented in this report do not reflect the consummation of the merger. We are in the process of evaluating the financial consequences of the merger and will report the results of the combined company from the effective date of the merger in our Quarterly Report on Form 10-Q for the quarter ending June 30, 2015.

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

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, including the sections entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures About Market Risk" under Items 2 and 3, respectively, of Part I of this report, and the section entitled "Risk Factors" under Item 1A of Part II of this report, may contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. All statements other than statements of historical fact are "forward-looking statements" for purposes of these statutes, including those relating to future events or our future financial performance. In some cases, you can identify these forward looking statements by words such as "intends," "will," "plans," "anticipates," "expects," "may," "might," "estimates," "believes," "should," "projects," "potential" or "continue," or the negative of those words and other comparable words, and other words or terms of similar meaning in connection with any discussion of future operating or financial performance. Similarly, statements that describe our business strategy, goals, prospects, opportunities, outlook, objectives, plans or intentions are also forward-looking statements. These statements are only predictions and may relate to, but are not limited to, expectations of future operating results or financial performance, capital expenditures, introduction of new products, regulatory compliance and plans for growth and future operations, as well as assumptions relating to the foregoing. These statements are based on current expectations and assumptions regarding future events and business performance and involve known and unknown risks, uncertainties and other factors that may cause actual events or results to be materially different from any future events or results expressed or implied by these statements. These factors include those set forth in the following discussion and within Item 1A "Risk Factors" of this Quarterly Report on Form 10-Q and elsewhere within this report.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes to those statements included elsewhere in this report. In addition to historical financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed under "Risk Factors" and elsewhere in this report.

Merger with Advanced Photonix, Inc.

On May 8, 2015, we completed the merger with Advanced Photonix, Inc., or API, pursuant to the Agreement and Plan of Merger and Reorganization, or the Merger Agreement, dated as of January 30, 2015, by and among Luna, API and API Merger Sub, Inc., a wholly-owned subsidiary of Luna, or API Merger Sub. In accordance with the terms of the Merger Agreement, upon the completion of the Merger, API Merger Sub merged with and into API, with API

surviving as a wholly owned subsidiary of Luna. In the Merger, former API stockholders received 0.31782 shares of Luna common stock for each share of API common stock they owned at the effective time of the Merger. The Merger is being accounted for under the acquisition

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method of accounting in accordance with Financial Accounting Standards Board Accounting Standard Topic 805, Business Combinations, with Luna treated as the accounting acquirer.

The Merger results in a combined company with a stronger position as a leader in optical technology. The Merger essentially doubles the revenue base of each of the companies on a stand-alone basis, and provides the opportunity to leverage a shared infrastructure and achieve significant cost savings by combining two public companies into one. The following Management's Discussion and Analysis of Financial Condition and Results of Operations does not include the financial results of API, as those results will be included in our results beginning from the effective date of the Merger. As a result, the results described herein should not be viewed as representative of the results of the combined company for any future period. Additionally the comparability of our operating results for the first quarter of fiscal 2015 to the same period in fiscal 2014 is significantly impacted by the transaction costs incurred in connection with the Merger. In our discussion and analysis of comparative periods, we have quantified the contribution of these transaction costs where material and identifiable.

Overview of Historical Luna Business

We develop, manufacture and market fiber optic sensing and test and measurement products and are focused on bringing new and innovative technology solutions to measure, monitor, protect and improve critical processes in the aerospace, automotive, energy, composite, telecommunications and defense industries. In addition, we provide applied research services, typically under research programs funded by the U.S. government, in areas of advance materials, sensing and healthcare applications. Our business model is designed to accelerate the process of bringing new and innovative products to market. We use our in-house technical expertise across a range of technologies to perform applied research services for companies and government-funded projects. We continue to invest in product development and commercialization, which we anticipate will lead to increased product sales growth.

We are organized into two main business segments, our Products and Licensing segment and our Technology Development segment. Our Products and Licensing segment develops, manufactures and markets our fiber optic sensing products, as well as test and measurement products, and also conducts applied research in the fiber optic sensing area for both corporate and government customers. We are continuing to develop and commercialize our fiber optic technology for strain and temperature sensing applications for the aerospace, automotive, and energy industries. Our Products and Licensing segment revenues represented approximately 40% and 46% of our total revenues for the three months ended March 31, 2014 and 2015, respectively.

Our Technology Development segment performs applied research principally in the areas of sensing and instrumentation, advanced materials and health sciences. Our Technology Development segment comprised approximately 60% and 54% of our total revenues for the three months ended March 31, 2014 and 2015, respectively. Most of the government funding for our Technology Development segment is derived from the Small Business Innovation Research, or SBIR, program coordinated by the U.S. Small Business Administration, or SBA. Our Technology Development segment revenues have historically accounted for a large portion of our total revenues, and we expect that they will continue to represent a significant portion of our total revenues for the foreseeable future. Our Technology Development segment revenues were \$2.7 million and \$2.9 million for the three months ended March 31, 2014 and 2015, respectively. Within the Technology Development segment, we have historically had a backlog of contracts for which work has been scheduled, but for which a specified portion of work has not yet been completed. We define backlog as the dollar amount of obligations payable to us under negotiated contracts upon completion of a specified portion of work that has not yet been completed, exclusive of revenues previously recognized for work already performed under these contracts, if any. Total backlog includes funded backlog, which is the amount for which money has been directly authorized by the U.S. Congress and for which a purchase order has been received by a commercial customer, and unfunded backlog, representing firm orders for which funding has not yet been appropriated. Indefinite delivery and quantity contracts and unexercised options are not reported in total backlog. The approximate value of our Technology Development segment backlog was \$13.1 million at March 31, 2015 and \$12.8 million at December 31, 2014.

Revenues from product sales are mostly derived from the sales of our sensing systems and products that make use of light-transmitting optical fibers, or fiber optics. We continue to invest in product development and commercialization, which we anticipate will lead to increased product sales growth. Although we have been successful in licensing

certain technology in past years, we do not expect license revenues to represent a significant portion of revenues in the near term. Over time, however, we do intend to gradually increase such revenues. In the near term, we expect revenues from product sales and product development to be primarily in areas associated with our fiber optic instrumentation, test and measurement and sensing platforms. In the long term, we expect that revenues from product sales will represent a larger portion of our total revenues and that as we develop and commercialize new products, these revenues will reflect a broader and more diversified mix of products.

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We may also grow our business in part through acquisitions of additional companies and complementary technologies, which could cause us to incur transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we expect to incur net losses for the foreseeable future, and these losses could be substantial.

In recent years, economic conditions around the world deteriorated, and the outlook for 2015 and beyond remains uncertain. This slowing of the economy, both in the United States and globally, reduced the financial capacities of some of our customers and potential customers, thereby slowing spending on the products and services we provide. Furthermore, reductions in government spending may impact the availability of new program awards in 2015. For example, the Budget Control Act commits the U.S. Government to reduce the federal deficit by \$1.2 trillion over ten years through a combination of automatic, across-the-board spending cuts and caps on discretionary spending, or sequestration. Automatic across-the-board cuts required by sequestration could have a material adverse effect on our technology development revenues and, consequently, our results of operations. While the exact manner in which sequestration will impact our business is unclear, funding for programs in which we participate could be reduced, delayed or canceled. Our ability to obtain new contract awards also could be negatively affected.

### Description of Our Revenues, Costs and Expenses

#### Revenues

We generate revenues from technology development, product sales and commercial product development and licensing activities. We derive Technology Development segment revenues from providing research and development services to third parties, including government entities, academic institutions and corporations, and from achieving milestones established by some of these contracts and in collaboration agreements. In general, we complete contracted research over periods ranging from six months to three years, and recognize these revenues over the life of the contract as costs are incurred or upon the achievement of certain milestones built into the contracts. Our Technology Development segment revenues represented approximately 60% and 54% of our total revenues for the three months ended March 31, 2014 and 2015, respectively.

Our Products and Licensing segment revenues reflect amounts that we receive from sales of our products or development of products for third parties, as well as fees paid to us in connection with licenses or sublicenses of certain patents and other intellectual property, and represented approximately 40% and 46% of our total revenues for the three months ended March 31, 2014 and 2015, respectively.

#### Cost of Revenues

Cost of revenues associated with our Technology Development segment revenues consists of costs associated with performing the related research activities including direct labor, amounts paid to subcontractors and overhead allocated to Technology Development segment activities.

Cost of revenues associated with our Products and Licensing segment revenues consists of license fees for use of certain technologies, product manufacturing costs including all direct material and direct labor costs, amounts paid to our contract manufacturers, manufacturing, shipping and handling, provisions for product warranties, and inventory obsolescence as well as overhead allocated to each of these activities.

#### Operating Expense

Operating expense consists of selling, general and administrative expenses, as well as expenses related to research, development and engineering, depreciation of fixed assets and amortization of intangible assets. These expenses also include compensation for employees in executive and operational functions including certain non-cash charges related to expenses from option grants, facilities costs, professional fees, salaries, commissions, travel expense and related benefits of personnel engaged in sales, product management and marketing activities, costs of marketing programs and promotional materials, salaries, bonuses and related benefits of personnel engaged in our own research and development beyond the scope and activities of our Technology Development segment, product development activities not provided under contracts with third parties, and overhead costs related to these activities.

#### Interest Expense

Interest expense is composed of interest paid under our bank loans as well as interest accrued on our capital lease obligations.





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## Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the amounts reported in our financial statements and the accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or judgments. Our critical accounting policies are described in the Management's Discussion and Analysis section and the notes to our audited consolidated financial statements previously included in our Annual Report on Form 10-K for the period ended December 31, 2014, as filed with the SEC on March 16, 2015. There have been no material changes to the descriptions therein.

## Results of Operations

Three Months Ended March 31, 2014 Compared to Three Months Ended March 31, 2015

## Revenues

	Three Months Ended March 31,				
	2014	2015	\$ Difference	% Difference	
Revenues:					
Technology development revenues	\$2,675,452	\$2,875,515	\$200,063	7	%
Products and licensing revenues	1,796,429	2,463,587	\$667,158	37	%
Total revenues	\$4,471,881	\$5,339,102	\$867,221	19	%

Revenues from our Technology Development segment for the three months ended March 31, 2015 increased to \$2.9 million, or 7%, from \$2.7 million during the same period in 2014. This increase is due primarily to increased contract work in our optical systems group of \$0.2 million, our nanotechnology group of \$0.2 million and materials group of \$0.1 million. These increases were partially offset by a decrease in our biomedical technologies group of \$0.3 million. Revenues from our Products and Licensing segment for the three months ended March 31, 2015 increased to \$2.5 million or 37% from \$1.8 million during the same period in 2014. This increase resulted primarily from growth in our telecom test products, principally our optical backscatter reflectometer line of products.

## Cost of Revenues and Gross Profit

	Three Months Ended March 31,				
	2014	2015	\$ Difference	% Difference	
Cost of revenues:					
Technology development costs	\$2,025,155	\$2,083,624	\$58,469	3	%
Products and licensing costs	894,640	966,689	\$72,049	8	%
Total cost of revenues	\$2,919,795	\$3,050,313	\$130,518	4	%
Gross Profit	\$1,552,086	\$2,288,789	\$736,703	47	%

The cost of our Technology Development segment revenues for the three months ended March 31, 2015 increased at a lower rate than revenues due to reduced overhead costs which are a component of cost of revenues, including lower fees for amortization, and lower costs for subcontractors.

The costs from our Products and Licensing segment increased by \$0.1 million from \$0.9 million during the first quarter of 2014 to \$1.0 million during the same period in 2015, due to higher sales of telecom test products. In addition, cost of revenues included a \$0.1 million charge for obsolete inventory in the first quarter of 2014, which did not recur in the first quarter of 2015.

Because of the overall increase in revenues of 19% in the three months ended March 31, 2015 compared to the three months ended March 31, 2014, and an associated increase of 4% in cost of revenues, our gross profit increased to \$2.3 million for the three months ended March 31, 2015 compared to \$1.6 million for the three months ended March 31, 2014.



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As the growth in revenues was driven by product sales, which typically have higher margins than revenues earned in our Technology Development segment, and an obsolescence charge in 2014 of \$0.1 million, which did not recur in 2015, our overall gross margins increased to 43% during the first quarter of 2015 compared to 35% for the same period of 2014.

## Operating Expense

	Three Months Ended March 31,		\$ Difference	% Difference	
	2014	2015			
Operating expense:					
Selling, general and administrative	\$2,755,078	\$4,569,107	\$1,814,029	66	%
Research, development and engineering	749,154	334,891	\$(414,263)	(55)	)%
Total operating expense	\$3,504,232	\$4,903,998	\$1,399,766	40	%

Our selling, general and administrative expense increased to \$4.6 million during the three months ended March 31, 2015, or 66%, from \$2.8 million for the same period in 2014. This increase was due primarily to \$1.8 million in expenses related to the Merger with API.

Research, development and engineering expense decreased 55% primarily due to a \$0.2 million reduced labor charges and related fringe charges in association with the sale of our medical shape sensing business during the first quarter of 2014.

## Other Income

During the three months ended March 31, 2014, we recognized approximately \$80,000 of rental income for the partial sublease of our Roanoke facility. This sublease expired on April 30, 2014. Therefore, we had no similar rent revenues for the three months ended March 31, 2015.

## Interest Expense

Interest expense for the three months ended March 31, 2015 was approximately \$9,137 compared to interest expense of approximately \$32,365 during the same period in 2014. The monthly average loan balance during the three months ended March 31, 2015 was \$0.5 million compared to \$1.9 million for the same period in 2014. The lower average loan balance accounted for the decrease in interest expense.

## Net Loss from Continuing Operations

As a result of our revenues of \$5.3 million offset by cost of revenues of \$3.1 million and operating expenses of \$4.9 million during the three months ended March 31, 2015, we incurred a loss from continuing operations before income taxes of approximately \$2.6 million, compared to a loss from continuing operations before income taxes of approximately \$1.9 million for the three months ended March 31, 2014. We recorded an income tax benefit related to our net operating losses of \$0.8 million and an income tax expense related to our net operating losses of \$0.0 million for the three months ended March 31, 2014 and 2015, respectively. Our net loss from continuing operations was \$2.6 million for the three months ended March 31, 2015 and after recognition of the tax benefit, our net loss from continuing operations was \$1.1 million for the three months ended March 31, 2014.

## Income Tax (Benefit)/Expense

During the first quarter of 2014 we recognized an income tax benefit of \$0.8 million due to our loss from continuing operations and the intra-period allocation from discontinued operations.

## Net Income from Discontinued Operations

For the three months ended March 31, 2014, we recognized net income from discontinued operations of \$9.7 million, which resulted from the sale of our medical shape sensing business that occurred during the first quarter of 2014.

## Liquidity and Capital Resources

At March 31, 2015, our total cash and cash equivalents were \$13.3 million.

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We previously maintained a term loan with Silicon Valley Bank, or SVB, which, at March 31, 2015 had a balance of \$0.3 million. This term loan matured on May 1, 2015. We also previously maintained a revolving line of credit of up to \$1.0 million with SVB, under which no amounts were borrowed.

In connection with the completion of the Merger, we entered into a new term debt arrangement with SVB in the principal amount of \$6.0 million to refinance the previously outstanding debt of API and the remaining borrowings on our prior term loan with SVB. The new term loan is secured by substantially all of our assets, amortizes over 48 monthly installments and bears interest at SVB's prime rate plus 2%.

We believe that our cash balance as of March 31, 2015 will provide adequate liquidity for us to meet our working capital needs over the next twelve months.

Discussion of Cash Flows

Recent Activity

	Three Months Ended March 31,		
	2014	2015	\$ Difference
Net cash used in operating activities	\$ (1,435,135 )	\$ (401,331 )	\$ 1,033,804
Net cash provided/(used in) by investing activities	4,764,856	(29,452 )	\$ (4,794,308 )
Net cash used in financing activities	(222,247 )	(389,771 )	\$ (167,524 )
Net change in cash	\$ 3,107,474	\$ (820,554 )	\$ (3,928,028 )

During the first three months of 2015, operations used \$0.4 million of cash, as compared to the same period in 2014 in which operations used \$1.4 million of cash. During the first three months of 2015, our net loss of \$2.6 million was primarily the result of expenses recorded in relation the Merger with API of \$1.8 million, charges for depreciation and amortization of \$0.2 million and share-based compensation of \$0.3 million.

During the first three months of 2014, our net income of \$8.5 million was primarily the result of the after-tax gain on the sale of our medical shape sensing business of \$9.7 million and a tax benefit of \$0.8 million. Without the effects of that gain and tax benefit, our loss from continuing operations before income taxes was approximately \$1.9 million. The loss from continuing operations before income taxes included charges for depreciation and amortization of \$0.2 million and share-based compensation of \$0.2 million both of which are non-cash items that do not impact cash flow for the period. Additionally, working capital remained virtually unchanged for the three months ended March 31, 2014 and 2015, and consisted of a \$0.9 million decrease in accounts receivable due to improved collection efforts, which was offset by a \$0.8 million decrease in accounts payable.

Our cash provided by investing activities is composed of purchases of equipment and capitalized costs associated with the prosecution of patents and in 2014 included the net cash proceeds from the sale of our medical shape sensing business.

During the three months ended March 31, 2015, we had a net cash outflow of approximately \$30,000 for equipment purchases and patent costs associated with certain intangible assets. During the three months ended March 31, 2014, we had a net cash inflow of \$5.0 million due to the sale of our medical shape sensing business and used \$0.2 million for both equipment purchases and patent costs associated with certain intangible assets.

Net cash used in financing activities during the three months ended March 31, 2015 included the scheduled repayments of principal for our debt and lease obligations, which in the aggregate resulted in net cash outflows of \$0.4 million. Net cash used in financing activities during the three months ended March 31, 2014 included the scheduled repayments of principal for our debt and lease obligations, which in the aggregate resulted in net cash outflows of \$0.4 million, which were partially offset by our receipt of \$0.2 million upon exercise of stock options and warrants during the period.

Off-Balance Sheet Arrangements

We have no material off-balance sheet arrangements as defined in Regulation S-K Item 303(a)(4)(ii).

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**ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. We do not hold or issue financial instruments for trading purposes or have any derivative financial instruments. Our exposure to market risk is limited to interest rate fluctuations due to changes in the general level of U. S. interest rates.

**Interest Rate Risk**

We do not use derivative financial instruments as a hedge against interest rate fluctuations, and, as a result, interest income earned on our cash and cash equivalents and short-term investments is subject to changes in interest rates. However, we believe that the impact of these fluctuations does not have a material effect on our financial position due to the immediately available liquidity or short-term nature of these financial instruments.

We are exposed to interest rate fluctuations as a result of our term loan with SVB having a variable interest rate. However, the term loan has a minimum fixed interest rate of 6%, which has been the actual interest rate in effect since 2011. We do not currently use derivative instruments to alter the interest rate characteristics of our debt. For the principal amount of \$1.0 million outstanding under the term loan as of March 31, 2015, a change in the interest rate by one percentage point for one year would result in a change in our annual interest expense of \$3,750.

Although we believe that this measure is indicative of our sensitivity to interest rate changes, it does not adjust for potential changes in our credit quality, composition of our balance sheet and other business developments that could affect our interest rate exposure. Accordingly, no assurances can be given that actual results would not differ materially from the potential outcome simulated by this estimate.

**Foreign Currency Exchange Rate Risk**

As of March 31, 2015, all payments made under our research contracts have been denominated in U. S. dollars. Our product sales to foreign customers are also generally denominated in U.S. dollars, and we generally do not receive payments in foreign currency. As such, we are not directly exposed to currency gains or losses resulting from fluctuations in foreign exchange rates.

**ITEM 4. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

We maintain “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are controls and other procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. 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, controls 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 control system, misstatements due to error or fraud may occur and not be detected.

Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report. Based on this evaluation, our principal executive officer and our principal financial officer have concluded that, as of March 31, 2015, our disclosure controls and procedures were effective at the reasonable assurance level.



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Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended March 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below before deciding whether to invest in our common stock. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are immaterial may also impair our business operations and financial results. If any of the following risks actually occurs, our business, financial condition or results of operations could be adversely affected. In such case, the trading price of our common stock could decline and you could lose all or part of your investment. Our filings with the Securities and Exchange Commission also contain forward-looking statements that involve risks or uncertainties. Our actual results could differ materially from those anticipated or contemplated by these forward-looking statements as a result of a number of factors, including the risks we face described below, as well as other variables that could affect our operating results. Past financial performance should not be considered to be a reliable indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods.

RISKS RELATING TO LUNA'S HISTORICAL BUSINESS

General

Our technology is subject to a license from Intuitive, which is revocable in certain circumstances. Without this license, we cannot continue to market, manufacture or sell our fiber-optic products.

As a part of the sale of our assets to Intuitive, we entered into a license agreement with Intuitive pursuant to which we received rights to use all of our transferred technology outside the field of medicine and in respect of our existing non-shape sensing products in certain non-robotic medical fields. This license back to us is revocable if after notice and certain time periods, we were to (i) challenge the validity or enforceability of the transferred patents and patent applications, (ii) commercialize our fiber optical shape sensing and localization technology in the field of medicine (except to perform on a development and supply project for Hansen), (iii) violate our obligations related to our ability to sublicense in the field of medicine or (iv) violate our confidentiality obligations in a manner that advantages a competitor in the field of medicine and not cure such violation. Maintaining this license is necessary for us to conduct our fiber-optic products business, both for our telecom products and our ODiSI sensing products. If this license were to be revoked by Intuitive, we would no longer be able to market, manufacture or sell these products which would severely limit our ability to continue operations.

We depend on third-party vendors for specialized components in our manufacturing operations, making us vulnerable to supply shortages and price fluctuations that could harm our business.

We primarily rely on third-party vendors for the manufacture of the specialized components used in our products. The highly specialized nature of our supply requirements poses risks that we may not be able to locate additional sources of the specialized components required in our business. For example, there are few manufacturers who produce the special lasers used in our optical test equipment. Our reliance on these vendors subjects us to a number of risks that could negatively affect our ability to manufacture our products and harm our business, including interruption of supply. Although we are now manufacturing tunable lasers in low-rate initial production, we expect our overall reliance on third-party vendors to continue. Any significant delay or interruption in the supply of components, or our inability to obtain substitute components or materials from alternate sources at acceptable prices and in a timely manner could impair our ability to meet the demand of our customers and could harm our business.



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As a provider of contract research to the U.S. government, we are subject to federal rules, regulations, audits and investigations, the violation or failure of which could adversely affect our business.

We must comply with and are affected by laws and regulations relating to the award, administration and performance of U.S. government contracts. Government contract laws and regulations affect how we do business with our government customers and, in some instances, impose added costs on our business. A violation of a specific law or regulation could result in the imposition of fines and penalties, termination of our contracts or debarment from bidding on contracts. In some instances, these laws and regulations impose terms or rights that are more favorable to the government than those typically available to commercial parties in negotiated transactions. For example, the U.S. government may terminate any of our government contracts and, in general, subcontracts, at their convenience, as well as for default based on performance.

In addition, U.S. government agencies, including the Defense Contract Audit Agency and the Department of Labor, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure and compliance with applicable laws, regulations and standards. The U.S. government also may review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit uncovers the inclusion of certain claimed costs deemed to be expressly unallowable, as with the preliminary audit report we received in September 2014 from the Defense Contract Audit Agency, or improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. In addition, our reputation could suffer serious harm if allegations of impropriety were made against us.

In addition to the risk of government audits and investigations, U.S. government contracts and grants impose requirements on contractors and grantees relating to ethics and business practices, which carry civil and criminal penalties including monetary fines, assessments, loss of the ability to do business with the U.S. government and certain other criminal penalties.

We may also be prohibited from commercially selling certain products that we develop under our Technology Development segment or related products based on the same core technologies if the U.S. government determines that the commercial availability of those products could pose a risk to national security. For example, certain of our wireless technologies have been classified as secret by the U.S. government and as a result we cannot sell them commercially. Any of these determinations would limit our ability to generate product sales and license revenues. Our failure to attract, train and retain skilled employees or members of our senior management and to obtain necessary security clearances for such persons or maintain a facility security clearance would adversely affect our business and operating results.

The availability of highly trained and skilled technical and professional personnel is critical to our future growth and profitability. Competition for scientists, engineers, technicians and professional personnel is intense and our competitors aggressively recruit key employees. In the past, we have experienced difficulties in recruiting and hiring these personnel as a result of the tight labor market in certain fields. Any difficulty in hiring or retaining qualified employees, combined with our growth strategy and future needs for additional experienced personnel, particularly in highly specialized areas such as nanomaterial manufacturing and fiber optic sensing technologies, may make it more difficult to meet all of our needs for these employees in a timely manner. Although we intend to continue to devote significant resources to recruit, train and retain qualified employees, we may not be able to attract and retain these employees, especially in technical fields in which the supply of experienced qualified candidates is limited, or at the senior management level. Any failure to do so would have an adverse effect on our business. Any loss of key personnel could have a material adverse effect on our ability to meet key operational objectives, such as timely and effective project milestones and product introductions, which in turn could adversely affect our business, results of operations and financial condition.

We provide certain services to the U.S. government that require us to maintain a facility security clearance and for certain of our employees and our board chairman to hold security clearances. In general, the failure for necessary

persons to obtain or retain sufficient security clearances, any loss by us of a facility security clearance or any public reprimand related to security matters could result in a U.S. government customer terminating an existing contract or choosing not to renew a contract or prevent us from bidding on or winning certain new government contracts. In addition, our future success depends in a large part upon the continued service of key members of our senior management team. We do not maintain any key-person life insurance policies on our officers. The loss of any members of our management team or other key personnel could seriously harm our business.

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We rely and will continue to rely on contracts and grants awarded under the SBIR program for a significant portion of our revenues. A finding by the SBA that we no longer qualify to receive SBIR awards could adversely affect our business.

We compete as a small business for some of our government contracts. Our revenues derived from the Small Business Innovation Research, or SBIR, program account for a significant portion of our consolidated total revenues, and contract research, including SBIR contracts, will remain a significant portion of our consolidated total revenues for the foreseeable future. For the year ended December 31, 2014, approximately 47% of our total revenues were generated under the SBIR program, compared to 44% in for the quarter ended March 31, 2015.

We may not continue to qualify to participate in the SBIR program or to receive new SBIR awards from federal agencies. In order to qualify for SBIR contracts and grants, we must meet certain size and ownership eligibility criteria. These eligibility criteria are applied as of the time of the award of a contract or grant. A company can be declared ineligible for a contract award as a result of a size challenge filed with the SBA by a competitor or a federal agency.

In order to be eligible for SBIR contracts and grants, under current SBA rules we must be more than 50% owned and controlled by individuals who are U.S. citizens or permanent resident aliens, and/or other small business concerns (each of which is more than 50% owned and controlled by individuals who are U.S. citizens or permanent resident aliens) or certain qualified investment companies. In the event our institutional ownership significantly increases, either because of increased buying by institutions or selling by individuals, we could lose eligibility for new SBIR contracts and grants.

Also, in order to be eligible for SBIR contracts and grants, the number of our employees, including those of any entities that are considered to be affiliated with us, cannot exceed 500. As of March 31, 2015, we had approximately 108 full-time employees. In determining whether we are affiliated with any other entity, the SBA may analyze whether another entity controls or has the power to control us. Carilion is our largest institutional stockholder. Since early 2011, a formal size determination by the SBA that focused on whether or not Carilion is or was our affiliate has been outstanding. Although we do not believe that Carilion has or had the power to control our company, we cannot assure you that the SBA will interpret its regulations in our favor on this question. If the SBA were to make a determination that we are or were affiliated with Carilion, we would exceed the size limitations, as Carilion has over 500 employees. In that case, we would lose eligibility for new SBIR contracts and grants and other awards that are set aside for small businesses based on the criterion of number of employees, and the relevant government agency would have the discretion to suspend performance on existing SBIR grants. The loss of our eligibility to receive SBIR awards would have a material adverse impact on our revenues, cash flows and our ability to fund our growth.

Moreover, as our business grows, it is foreseeable that we will eventually exceed the SBIR size limitations, in which case we may be required to seek alternative sources of revenues or capital.

A decline in government research contract awards or government funding for existing or future government research contracts, including SBIR contracts, could adversely affect our revenues, cash flows and ability to fund our growth. Technology development revenues, which consist primarily of government-funded research, accounted for approximately 60% and 54% of our consolidated total revenues for the three months ended March 31, 2014 and 2015, respectively. As a result, we are vulnerable to adverse changes in our revenues and cash flows if a significant number of our research contracts and subcontracts were to be simultaneously delayed or canceled for budgetary, performance or other reasons. For example, the U.S. government may cancel these contracts at any time without cause and without penalty or may change its requirements, programs or contract budget, any of which could reduce our revenues and cash flows from U.S. government research contracts. Our revenues and cash flows from U.S. government research contracts and subcontracts could also be reduced by declines or other changes in U.S. defense, homeland security and other federal agency budgets. In addition, we compete as a small business for some of these contracts, and in order to maintain our eligibility to compete as a small business, we, together with any affiliates, must continue to meet size and revenue limitations established by the U.S. government.

Our contract research customer base includes government agencies, corporations and academic institutions. Our customers are not obligated to extend their agreements with us and may elect not to do so. Also, our customers' priorities regarding funding for certain projects may change and funding resources may no longer be available at

previous levels.

In addition, the Budget Control Act commits the U.S. Government to reduce the federal deficit by \$1.2 trillion over ten years through a combination of automatic, across-the-board spending cuts and caps on discretionary spending. This “sequestration” under the Budget Control Act, which is split equally between defense and non-defense programs, went into effect on March 1, 2013. The appropriate resolution reflecting a budget deal for fiscal years 2014 and 2015 reduces but does not eliminate these sequestration cuts. Any spending cuts required by “sequestration” could have a material adverse effect on our technology development revenues and, consequently, our results of operations. While the exact manner in which this “sequestration” may impact our business remains unclear, funding for programs in which we participate could be reduced, delayed or canceled. Our ability to obtain new contract awards also could be negatively affected.

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In addition to contract cancellations and changes in agency budgets, our future financial results may be adversely affected by curtailment of or restrictions on the U.S. government's use of contract research providers, including curtailment due to government budget reductions and related fiscal matters or any legislation or resolution limiting the number or amount of awards we may receive. These or other factors could cause U.S. defense and other federal agencies to conduct research internally rather than through commercial research organizations or direct awards to other organizations, to reduce their overall contract research requirements or to exercise their rights to terminate contracts. Alternatively, the U.S. government may discontinue the SBIR program or its funding altogether. Also, SBIR regulations permit increased competition for SBIR awards from companies that may not have previously been eligible, such as those backed by venture capital operating companies, hedge funds and private equity firms. Any of these developments could limit our ability to obtain new contract awards and adversely affect our revenues, cash flows and ability to fund our growth.

The results of our operations could be adversely affected by economic and political conditions and the effects of these conditions on our customers' businesses and levels of business activity.

Global economic and political conditions affect our customers' businesses and the markets they serve. A severe or prolonged economic downturn or a negative or uncertain political climate could adversely affect our customers' financial conditions and the timing or levels of business activity of our customers and the industries we serve. This may reduce the demand for our products or depress pricing for our products and have a material adverse effect on our results of operations. Changes in global economic conditions could also shift demand to products or services for which we do not have competitive advantages, and this could negatively affect the amount of business we are able to obtain. In addition, if we are unable to successfully anticipate changing economic and political conditions, we may be unable to effectively plan for and respond to those changes, and our business could be negatively affected as a result. There was a rapid softening of the economy and tightening of the financial markets in 2008 and 2009. This slowing of the economy has reduced the financial capacity of some of our customers and, to the extent that such economic conditions continue in certain industries, it could continue to affect our potential customers, thereby slowing spending on the products and services we provide. The outlook for the economy in 2015 and beyond remains uncertain, and until there is a sustained economic recovery our revenues and results of operations could be negatively impacted. We have a history of losses, and because our strategy for expansion may be costly to implement, we may experience continuing losses and may never achieve or maintain profitability or positive cash flow.

We realized a net loss from continuing operations of \$1.9 million and \$2.6 million for the three months ended March 31, 2014 and 2015, respectively. We expect to continue to incur significant expenses as we pursue our strategic initiatives, including increased expenses for research and development, sales and marketing and manufacturing. We may also grow our business in part through acquisitions of additional companies and complementary technologies which could cause us to incur greater than anticipated transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we expect to incur net losses for the foreseeable future, and these losses could be substantial. At a certain level, continued net losses could impair our ability to comply with NASDAQ continued listing standards, as described further below.

Our ability to generate additional revenues and to become profitable will depend on our ability to execute our key growth initiative regarding the development, marketing and sale of sensing products, develop and commercialize innovative technologies, expand our contract research capabilities and sell the products that result from those development initiatives. We are unable to predict when or if we will be able to achieve profitability. If our revenues do not increase, or if our expenses increase at a greater rate than our revenues, we will continue to experience losses. Even if we do achieve profitability, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

We have obtained capital by borrowing money under a term loan and we might require additional capital to support and expand our business; our term loan has various loan covenants with which we must comply.

We intend to continue to make investments to support our business growth, including developing new products, enhancing our existing products, obtaining important regulatory approvals, enhancing our operating infrastructure, completing our development activities and building our commercial scale manufacturing facilities. To the extent that we are unable to become or remain profitable and to finance our activities from our continuing operations, we may

require additional funds to support these initiatives and to grow our business.

If we are successful in raising additional funds through issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, including as the result of the issuance of warrants in connection with the financing, and any new equity securities we issue could have rights, preferences and privileges superior to those of our existing

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common stock. Furthermore, such financings may jeopardize our ability to apply for SBIR grants or qualify for SBIR contracts or grants, and our dependence on SBIR grants may restrict our ability to raise additional outside capital. If we raise additional funds through debt financings, these financings may involve significant cash payment obligations and covenants that restrict our ability to operate our business and make distributions to our stockholders.

We have a term loan with SVB, which requires us to observe certain financial and operational covenants, including maintenance of a specified cash balance, protection and registration of intellectual property rights, and certain customary negative covenants, as well as other customary events of default. If any event of default occurs SVB may declare due immediately all borrowings under our term loan and foreclose on the collateral. Furthermore, an event of default would result in an increase in the interest rate on any amounts outstanding.

If we are unable to obtain adequate financing or financing terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly limited.

Our nanotechnology-enabled products are new and may be, or may be perceived as being, harmful to human health or the environment.

While we believe that none of our current products contain chemicals known by us to be hazardous or subject to environmental regulation, it is possible that our current or future products, particularly carbon-based nanomaterials, may become subject to environmental or other regulation. We intend to develop and sell carbon-based nanomaterials as well as nanotechnology-enabled products, which are products that include nanomaterials as a component to enhance those products' performance. Nanomaterials and nanotechnology-enabled products have a limited historical safety record. Because of their size or shape or because they may contain harmful elements, such as gadolinium and other rare-earth metals, our products could pose a safety risk to human health or the environment. These characteristics may also cause countries to adopt regulations in the future prohibiting or limiting the manufacture, distribution or use of nanomaterials or nanotechnology-enabled products. Such regulations may inhibit our ability to sell some products containing those materials and thereby harm our business or impair our ability to develop commercially viable products.

The subject of nanotechnology has received negative publicity and has aroused public debate. Government authorities could, for social or other purposes, prohibit or regulate the use of nanotechnology. Ethical and other concerns about nanotechnology could adversely affect acceptance of our potential products or lead to government regulation of nanotechnology-enabled products.

We face and will face substantial competition in several different markets that may adversely affect our results of operations.

We face and will face substantial competition from a variety of companies in several different markets. As we focus on developing marketing and selling fiber optic sensing products, we may also face substantial and entrenched competition in that market.

Many of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, sales and marketing, manufacturing, distribution, technical and other resources than we do. These competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements. In addition, current and potential competitors have established or may establish financial or strategic relationships among themselves or with existing or potential customers or other third parties. Accordingly, new competitors or alliances among competitors could emerge and rapidly acquire significant market share. We cannot assure you that we will be able to compete successfully against current or new competitors, in which case our revenues may fail to increase or may decline.

### Risks Relating to our Operations and Business Strategy

If we cannot successfully transition our revenue mix from contract research revenues to product sales and license revenues, we may not be able to fully execute our business model or grow our business.

Our business model and future growth depend on our ability to transition to a revenue mix that contains significantly larger product sales and revenues from the provision of services or from licensing. Product sales and these revenues potentially offer greater scalability than contract research revenues. Our current plan is to increase our sales of commercial products, our licensing revenues and our provision of non-research services to customers so as to represent a larger percentage of our total revenues. If we are unable to develop and grow our product sales and

revenues from the provision of services or from licensing to augment our contract research revenues, however, our ability to execute our business model or grow our business could suffer. There can be no assurance that we will be able to achieve increased revenues in this manner.



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Failure to develop, introduce and sell new products or failure to develop and implement new technologies, could adversely impact the financial results of the combined company.

Success of the combined company will depend on its ability to develop and introduce new products and software platforms that customers choose to buy. The new products the market requires tend to be increasingly complex, incorporating more functions and operating at faster speeds than old products. If the combined company fails to introduce new product designs or technologies in a timely manner or if customers do not successfully introduce new systems or products incorporating products of the combined company, the business, financial condition and results of operations of the combined company could be materially harmed.

If we are unable to manage growth effectively, our revenues and net loss could be adversely affected.

We may need to expand our personnel resources to grow our business effectively. We believe that sustained growth at a higher rate will place a strain on our management as well as on our other human resources. To manage this growth, we must continue to attract and retain qualified management, professional, scientific and technical and operating personnel. If we are unable to recruit a sufficient number of qualified personnel, we may be unable to staff and manage projects adequately, which in turn may slow the rate of growth of our contract research revenues or our product development efforts.

We may not be successful in identifying market needs for new technologies or in developing new products.

Part of our business model depends on our ability to correctly identify market needs for new technologies. We intend to identify new market needs, but we may not always have success in doing so in part because our contract research largely centers on identification and development of unproven technologies, often for new or emerging markets.

Furthermore, we must identify the most promising technologies from a sizable pool of projects. If our commercialization strategy process fails to identify projects with commercial potential or if management does not ensure that such projects advance to the commercialization stage, we may not successfully commercialize new products and grow our revenues.

Our growth strategy requires that we also develop successful commercial products to address market needs. We face several challenges in developing successful new products. Many of our existing products and those currently under development are technologically innovative and require significant and lengthy product development efforts. These efforts include planning, designing, developing and testing at the technological, product and manufacturing-process levels. These activities require us to make significant investments. Although there are many potential applications for our technologies, our resource constraints require us to focus on specific products and to forgo other opportunities. We expect that one or more of the potential products we choose to develop will not be technologically feasible or will not achieve commercial acceptance, and we cannot predict which, if any, of our products we will successfully develop or commercialize. The technologies we research and develop are new and steadily changing and advancing. The products that are derived from these technologies may not be applicable or compatible with the state of technology or demands in existing markets. Our existing products and technologies may become uncompetitive or obsolete if our competitors adapt more quickly than we do to new technologies and changes in customers' requirements. Furthermore, we may not be able to identify if and when new markets will open for our products given that future applications of any given product may not be readily determinable, and we cannot reasonably estimate the size of any markets that may develop. If we are not able to successfully develop new products, we may be unable to increase our product revenues. We have limited experience manufacturing our products in commercial quantities in a cost-effective manner, which could adversely impact our business.

In the past, we produced most of our products on a custom order basis rather than pursuant to large contracts that require production on a large volume basis. Accordingly, other than the commercial manufacture of products by our Products and Licensing segment, we have no experience manufacturing products in large volumes. Because our experience in large scale manufacturing is limited, we may encounter unforeseen difficulties in our efforts to manufacture other products or materials in commercial quantities or have to rely on third-party contractors over which we may not have direct control to manufacture our products. We may also encounter difficulties and delays in manufacturing our products for any of the following reasons:

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we may need to expand our manufacturing operations, and our production processes may have to change to accommodate this growth;

to increase our manufacturing output significantly, we will have to attract and retain qualified employees, who are in short supply, for the assembly and testing operations;

we might have to sub-contract to outside manufacturers which might limit our control of costs and processes; and  
our manufacturing operations may have to comply with government or customer-mandated specifications.

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If we are unable to keep up with demand for our products, our revenues could be impaired, market acceptance of our products could be adversely affected and our customers might instead purchase our competitors' products. Moreover, failure to develop and maintain a U.S. market for goods developed with U.S. government-licensed technology may result in the cancellation of the relevant U.S. government licenses. Our inability to manufacture our products successfully would have a material adverse effect on our revenues.

Even if we are able to manufacture our products on a commercial scale, the cost of manufacturing our products may be higher than we expect. If the costs associated with manufacturing are not significantly less than the prices at which we can sell our products, we may not be able to operate at a profit.

We face risks associated with our international business.

We currently conduct business internationally and we might considerably expand our international activities in the future. Our international business operations are subject to a variety of risks associated with conducting business internationally, including:

- having to comply with U.S. export control regulations and policies that restrict our ability to communicate with non-U.S. employees and supply foreign affiliates and customers;
- changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products, perform services or repatriate profits to the United States;
- the imposition of tariffs;
- hyperinflation or economic or political instability in foreign countries;
- imposition of limitations on, or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- conducting business in places where business practices and customs are unfamiliar and unknown;
- the imposition of restrictive trade policies;
- the imposition of inconsistent laws or regulations;
- the imposition or increase of investment and other restrictions or requirements by foreign governments;
- uncertainties relating to foreign laws and legal proceedings;
- having to comply with a variety of U.S. laws, including the Foreign Corrupt Practices Act, or FCPA; and
- having to comply with licensing requirements.

We do not know the impact that these regulatory, geopolitical and other factors may have on our international business in the future.

We could be negatively affected by a security breach, either through cyber attack, cyber intrusion or other significant disruption of our IT networks and related systems.

We face the risk, as does any company, of a security breach, whether through cyber attack or cyber intrusion over the Internet, malware, computer viruses, attachments to e-mails, persons inside our organization or persons with access to systems inside our organization, or other significant disruption of our IT networks and related systems. The risk of a security breach or disruption, particularly through cyber attack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased.

As a technology company, and particularly as a government contractor, we may face a heightened risk of a security breach or disruption from threats to gain unauthorized access to our proprietary, confidential or classified information on our IT networks and related systems. These types of information and IT networks and related systems are critical to the operation of our business and essential to our ability to perform day-to-day operations, and, in some cases, are critical to the operations of certain of our customers. In addition, as certain of our technological capabilities become widely known, it is possible that we may be subjected to cyber attack or cyber intrusion as third parties seek to gain improper access to information regarding these capabilities and cyber attacks or cyber intrusion could compromise our confidential information or our IT networks and systems generally, as it is not practical as a business matter to isolate all of our confidential information and trade secrets from email and internet access. There can be no assurance that our security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging.

A security breach or other significant disruption involving these types of information and IT networks and related systems could disrupt the proper functioning of these networks and systems and therefore our operations, compromise our confidential information and trade secrets, or damage our reputation among our customers and the public generally. Any of these developments could have a negative impact on our results of operations, financial condition and cash flows.

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Risks Relating to our Regulatory Environment

Our operations are subject to domestic and foreign laws, regulations and restrictions, and noncompliance with these laws, regulations and restrictions could expose us to fines, penalties, suspension or debarment, which could have a material adverse effect on our profitability and overall financial position.

Our operations, particularly our international sales, subject us to numerous U.S. and foreign laws and regulations, including, without limitation, regulations relating to imports, exports (including the Export Administration Regulations and the International Traffic in Arms Regulations), technology transfer restrictions, anti-boycott provisions, economic sanctions and the FCPA. The number of our various emerging technologies, the development of many of which has been funded by the Department of Defense, presents us with many regulatory challenges. Failure by us or our sales representatives or consultants to comply with these laws and regulations could result in administrative, civil, or criminal liabilities and could result in suspension of our export privileges, which could have a material adverse effect on our business. Changes in regulation or political environment may affect our ability to conduct business in foreign markets including investment, procurement and repatriation of earnings.

Our healthcare and medical products are and may continue to be subject to a lengthy and uncertain domestic regulatory approval process. If we do not obtain and maintain the necessary domestic regulatory approvals or clearances, we will not be able to market and sell our products for clinical use in the United States. Complying with applicable regulations is an expensive and time-consuming process and any failure to fully comply with such regulations could subject us to enforcement actions.

Certain of our current and potential products could require regulatory clearances or approvals prior to commercialization. For example, any nanomaterial-based MRI contrast agent is likely to be considered a drug under the Federal Food, Drug and Cosmetic Act, or the FDC Act. Drugs and some medical devices are subject to rigorous preclinical testing and other approval requirements by the U.S. Food and Drug Administration, or the FDA, pursuant to the FDC Act, and regulations under the FDC Act, as well as by similar health authorities in foreign countries. Various federal statutes and regulations also govern or influence the testing, manufacturing, safety, labeling, packaging, advertising, storage, registration, listing and recordkeeping related to marketing of pharmaceuticals. The process of obtaining these clearances or approvals and the subsequent compliance with appropriate federal statutes and regulations require the expenditure of substantial resources, which we may not be able to obtain on favorable terms, if at all. We cannot be certain that any required FDA or other regulatory approval will be granted or, if granted, will not be withdrawn. Our failure to obtain the necessary regulatory approvals, or our failure to obtain them in a timely manner, will prevent or delay our commercialization of new products and our business or our stock price could be adversely affected as a result.

We will also become subject to inspection and marketing surveillance by the FDA to determine our compliance with regulatory requirements. If the FDA determines that we have failed to comply, it can institute a wide variety of enforcement actions ranging from a regulatory letter to a public warning letter to more severe civil and criminal sanctions. Our failure to comply with applicable requirements could lead to an enforcement action that may have an adverse effect on our financial condition and results of operations.

If our manufacturing facilities do not meet Federal, state or foreign country manufacturing standards, we may be required to temporarily cease all or part of our manufacturing operations, which would result in product delivery delays and negatively impact revenues.

Our manufacturing facilities are subject to periodic inspection by regulatory authorities and our operations will continue to be regulated by the FDA for compliance with Good Manufacturing Practice requirements contained in the quality systems regulations. We are also required to comply with International Organization for Standardization, or ISO, quality system standards in order to produce products for sale in Europe. If we fail to continue to comply with Good Manufacturing Practice requirements or ISO standards, we may be required to cease all or part of our operations until we comply with these regulations. Obtaining and maintaining such compliance is difficult and costly. We cannot be certain that our facilities will be found to comply with Good Manufacturing Practice requirements or ISO standards in future inspections and audits by regulatory authorities. In addition, if we cannot maintain or establish manufacturing facilities or operations that comply with such standards or do not meet the expectations of our customers, we may not be able to realize certain economic opportunities in our current or future supply arrangements.



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Medical products are subject to various international regulatory processes and approval requirements. If we do not obtain and maintain the necessary international regulatory approvals for any such potential products, we may not be able to market and sell our medical products in foreign countries.

To be able to market and sell medical products in other countries, we must obtain regulatory approvals and comply with the regulations of those countries. These regulations, including the requirements for approvals and the time required for regulatory review, vary from country to country. Obtaining and maintaining foreign regulatory approvals are expensive, and we cannot be certain that we will have the resources to be able to pursue such approvals or whether we would receive regulatory approvals in any foreign country in which we plan to market our products. For example, the European Union requires that manufacturers of medical products obtain the right to affix the CE mark to their products before selling them in member countries of the European Union, which we have not yet obtained and may never obtain. If we fail to obtain regulatory approval in any foreign country in which we plan to market our products, our ability to generate revenues will be harmed.

We are subject to additional significant foreign and domestic government regulations, including environmental and health and safety regulations, and failure to comply with these regulations could harm our business.

Our facilities and current and proposed activities involve the use of a broad range of materials that are considered hazardous under applicable laws and regulations. Accordingly, we are subject to a number of foreign, federal, state and local laws and regulations relating to health and safety, protection of the environment and the storage, use, disposal of, and exposure to, hazardous materials and wastes. We could incur costs, fines and civil and criminal penalties, personal injury and third party property damage claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental, health and safety laws. Moreover, a failure to comply with environmental laws could result in fines and the revocation of environmental permits, which could prevent us from conducting our business. Liability under environmental laws can be joint and several and without regard to fault. There can be no assurance that violations of environmental and health and safety laws will not occur in the future as a result of the inability to obtain permits, human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could harm our business. Accordingly, violations of present and future environmental laws could restrict our ability to expand facilities, pursue certain technologies, and could require us to acquire costly equipment or incur potentially significant costs to comply with environmental regulations. Compliance with foreign, federal, state and local environmental laws and regulations represents a small part of our present budget. If we fail to comply with any such laws or regulations, however, a government entity may levy a fine on us or require us to take costly measures to ensure compliance. Any such fine or expenditure may adversely affect our development. We cannot predict the extent to which future legislation and regulation could cause us to incur additional operating expenses, capital expenditures or restrictions and delays in the development of our products and properties.

**Risks Relating to our Intellectual Property**

Our proprietary rights may not adequately protect our technologies.

Our commercial success will depend in part on our obtaining and maintaining patent, trade secret, copyright and trademark protection of our technologies in the United States and other jurisdictions as well as successfully enforcing this intellectual property and defending it against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable intellectual property protections, such as patents or trade secrets, cover them. In particular, we place considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes. The degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. The degree of future protection of our proprietary rights is also uncertain for products that are currently in the early stages of development because we cannot predict which of these products will ultimately reach the commercial market or whether the commercial versions of these products will incorporate proprietary technologies.

Our patent position is highly uncertain and involves complex legal and factual questions. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;

- we or our licensors might not have been the first to file patent applications for these inventions;

- others may independently develop similar or alternative technologies or duplicate any of our technologies;

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it is possible that none of our pending patent applications or the pending patent applications of our licensors will result in issued patents;

patents may issue to third parties that cover how we might practice our technology;

our issued patents and issued patents of our licensors may not provide a basis for commercially viable technologies,

may not provide us with any competitive advantages, or may be challenged and invalidated by third parties; and

we may not develop additional proprietary technologies that are patentable.

Patents may not be issued for any pending or future pending patent applications owned by or licensed to us, and claims allowed under any issued patent or future issued patent owned or licensed by us may not be valid or sufficiently broad to protect our technologies. Moreover, protection of certain of our intellectual property may be unavailable or limited in the United States or in foreign countries, and we have not sought to obtain foreign patent protection for certain of our products or technologies due to cost, concerns about enforceability or other reasons. Any issued patents owned by or licensed to us now or in the future may be challenged, invalidated, or circumvented, and the rights under such patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, and in the case of certain products no foreign patents were filed or can be filed. This could make it easier for competitors to capture or increase their market share with respect to related technologies. We could incur substantial costs to bring suits in which we may assert our patent rights against others or defend ourselves in suits brought against us. An unfavorable outcome of any litigation could have a material adverse effect on our business and results of operations.

We also rely on trade secrets to protect our technology, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. We regularly attempt to obtain confidentiality agreements and contractual provisions with our collaborators, employees and consultants to protect our trade secrets and proprietary know-how. These agreements may be breached or may not have adequate remedies for such breach. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors, or those of our strategic partners, may unintentionally or willfully disclose our information to competitors. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, our enforcement efforts would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States are sometimes unwilling to protect trade secrets. Moreover, if our competitors independently develop equivalent knowledge, methods and know-how, it will be more difficult for us to enforce our rights and our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our technologies, then we will not be able to exclude competitors from developing or marketing competing technologies and we may not generate enough revenues from product sales to justify the cost of developing our technologies and to achieve or maintain profitability. We also rely on trademarks to establish a market identity for our company and our products. To maintain the value of our trademarks, we might have to file lawsuits against third parties to prevent them from using trademarks confusingly similar to or dilutive of our registered or unregistered trademarks. Also, we might not obtain registrations for our pending trademark applications, and we might have to defend our registered trademark and pending trademark applications from challenge by third parties. Enforcing or defending our registered and unregistered trademarks might result in significant litigation costs and damages, including the inability to continue using certain trademarks. Third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result.

Various U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in our technology areas. Such third parties may claim that we infringe their patents. Because patent applications can take several years to result in a patent issuance, there may be currently pending applications, unknown to us, which may later result in issued patents that our technologies may infringe. For example, we are aware of competitors with patents in technology areas applicable to our optical test equipment products. Such competitors may allege that we infringe these patents. There could also be existing patents of which we are not aware that our technologies may inadvertently infringe. We have from time to time been, and may in the future be, contacted by third parties, including patent assertion entities or intellectual property advisors, about licensing opportunities that also contain claims that we

are infringing on third party patent rights. If third parties assert these claims against us, we could incur extremely substantial costs and diversion of management resources in defending these claims, and the defense of these claims could have a material adverse effect on our business, financial condition and results of operations. Even if we believe we have not infringed on a third party's patent rights, we may have to settle a claim on unfavorable terms because we cannot afford to litigate the claim. In addition, if third parties assert claims against us and we are unsuccessful in defending against these claims, these third parties may be awarded substantial damages as well as injunctive or other equitable relief against us, which could effectively block our ability to make, use, sell, distribute or market our products and services in the United States or abroad.

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Commercial application of nanotechnologies in particular, or technologies involving nanomaterials, is new and the scope and breadth of patent protection is uncertain. Consequently, the patent positions of companies involved in nanotechnologies have not been tested, and there are complex legal and factual questions for which important legal principles will be developed or may remain unresolved. In addition, it is not clear whether such patents will be subject to interpretations or legal doctrines that differ from conventional patent law principles. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our nanotechnology-related intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our nanotechnology-related patents or in third party patents. In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on commercially reasonable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture or distribution of our products and, therefore, could have a material adverse effect on our business, financial condition and results of operations.

A substantial portion of our technology is subject to retained rights of our licensors, and we may not be able to prevent the loss of those rights or the grant of similar rights to third parties.

A substantial portion of our technology is licensed from academic institutions, corporations and government agencies. Under these licensing arrangements, a licensor may obtain rights over the technology, including the right to require us to grant a license to one or more third parties selected by the licensor or that we provide licensed technology or material to third parties for non-commercial research. The grant of a license for any of our core technologies to a third party could have a material and adverse effect on our business. In addition, some of our licensors retain certain rights under the licenses, including the right to grant additional licenses to a substantial portion of our core technology to third parties for non-commercial academic and research use. It is difficult to monitor and enforce such non-commercial academic and research uses, and we cannot predict whether the third-party licensees would comply with the use restrictions of such licenses. We have incurred and could incur substantial expenses to enforce our rights against them. We also may not fully control the ability to assert or defend those patents or other intellectual property which we have licensed from other entities, or which we have licensed to other entities.

In addition, some of our licenses with academic institutions give us the right to use certain technology previously developed by researchers at these institutions. In certain cases we also have the right to practice improvements on the licensed technology to the extent they are encompassed by the licensed patents and are within our field of use. Our licensors may currently own and may in the future obtain additional patents and patent applications that are necessary for the development, manufacture and commercial sale of our anticipated products. We may be unable to agree with one or more academic institutions from which we have obtained licenses whether certain intellectual property developed by researchers at these academic institutions is covered by our existing licenses. In the event that the new intellectual property is not covered by our existing licenses, we would be required to negotiate a new license agreement. We may not be able to reach agreement with current or future licensors on commercially reasonable terms, if at all, or the terms may not permit us to sell our products at a profit after payment of royalties, which could harm our business.

Some of our patents may cover inventions that were conceived or first reduced to practice under, or in connection with, U.S. government contracts or other federal funding agreements. With respect to inventions conceived or first reduced to practice under a federal funding agreement, the U.S. government may retain a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention throughout the world. We may not succeed in our efforts to retain title in patents, maintain ownership of intellectual property or in limiting the U.S. government's rights in our proprietary technologies and intellectual property when an issue exists as to whether such intellectual property was developed in the performance of a federal funding agreement or developed at private expense.

**RISKS RELATED TO API'S HISTORICAL BUSINESS**

We may dispose of or discontinue existing API product lines and technology developments, which may adversely impact our future results.

On an ongoing basis, API has evaluated API's various product offerings and technology developments in order to determine whether any should be discontinued or, to the extent possible, divested. In addition, if we are unable to generate the amount of cash needed to fund the future operations of API's historical business, we may be forced to sell one or more of API's product lines or technology developments.

We cannot guarantee that API has correctly forecasted, or that we will correctly forecast in the future, the right product lines and technology developments to dispose or discontinue or that our decision to dispose of or discontinue various investments, products lines and technology developments is prudent if market conditions change. In addition, there are no

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assurances that the discontinuance of various product lines will reduce operating expenses or will not cause us to incur material charges associated with such decision. Furthermore, the discontinuance of existing product lines entails various risks, including the risk that we will not be able to find a purchaser for a product line or the purchase price obtained will not be equal to at least the book value of the net assets for the product line. Other risks include managing the expectations of, and maintaining good relations with, API's historical customers who previously purchased products from a disposed or discontinued product line, which could prevent us from selling other products to them in the future. We may also incur other significant liabilities and costs associated with disposal or discontinuance of product lines, including employee severance costs and excess facilities costs.

API's historical businesses are subject to the cyclical nature of the markets in which API has competed and any future downturn may reduce demand for API's products and revenue.

Many factors beyond our control affect the industry of API's historical business, including consumer confidence in the economy, interest rates, fuel prices and the general availability of credit. The overall economic climate and changes in Gross National Product growth has a direct impact on API's customers and the demand for API's products. We cannot be sure that the historical API business will not be adversely affected as a result of an industry or general economic downturn.

API's customers may reduce capital expenditures and have difficulty satisfying liquidity needs because of continued turbulence in the U.S. and global economies, resulting in reduced sales of API's products and harm to our financial condition and results of operations.

In particular, API's historical results of operations have been subject to substantial fluctuations, and we may experience substantial period-to-period fluctuations in future results of operations. Any future downturn in the markets in which API has historically competed could significantly reduce the demand for API's products and therefore may result in a significant reduction in revenue. It may also increase the volatility of the price of our common stock. Our revenue and results of operations may be materially and adversely affected in the future due to changes in demand from customers or cyclical changes in the markets utilizing API's products.

In addition, the telecommunications industry, has, from time to time, experienced, and may again experience, a pronounced downturn. To respond to a downturn, many service providers may slow their capital expenditures, cancel or delay new developments, reduce their workforces and inventories and take a cautious approach to acquiring new equipment and technologies from original equipment manufacturers like API, which would have a negative impact on API's historical business. Weakness in the global economy or a future downturn in the telecommunications industry may cause our results of operations to fluctuate from quarter-to-quarter and year-to-year, harm our business, and may increase the volatility of the price of our common stock.

Customer acceptance of API's products is dependent on our ability to meet changing requirements, and any decrease in acceptance could adversely affect our revenue.

Customer acceptance of API's products is significantly dependent on our ability to offer products that meet the changing requirements of API's customers, including telecommunication, military, medical and industrial corporations, as well as government agencies. Any decrease in the level of customer acceptance of API's products could have a material adverse effect on our business.

API's products must meet exacting specifications, and defects and failures may occur, which may cause customers to return or stop buying API's products.

API's customers generally establish demanding specifications for quality, performance and reliability that API's products must meet. However, API's products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. API's products are also subject to rough environments as they are integrated into API's customer products for use by the end customers. If defects and failures occur in API's products, we could experience lost revenue, increased costs, including warranty expense and costs associated with customer support, delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, diversion of management resources or damage to our or API's reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in API's ability to fill product orders as a result of quality control issues may negatively impact API's relationship with API's customers. We cannot assure you that we will have sufficient resources, including any available insurance, to satisfy any asserted claims.

Rapidly changing standards and regulations could make API's products obsolete, which would cause our revenue and results of operations to suffer.

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API designs products to conform to its customers' requirements and API's customers' systems may be subject to regulations established by governments or industry standards bodies worldwide. Because certain of API's products are designed to conform to current specific industry standards, if competing or new standards emerge that are preferred by API's customers, we would have to make significant expenditures to develop new products. If API's customers adopt new or competing industry standards with which API's products are not compatible, or the industry groups adopt standards or governments issue regulations with which API's products are not compatible, API's existing products would become less desirable to API's customers and our revenue and results of operations would suffer.

The markets for many of API's products are characterized by changing technology which could cause obsolescence of API's products, and we may incur substantial costs in delivering new products.

The markets for many of API's products are characterized by changing technology, new product introductions and product enhancements, and evolving industry standards. The introduction or enhancement of products embodying new technology or the emergence of new industry standards could render existing products obsolete, and result in a write down to the value of our inventory, or result in shortened product life cycles. Accordingly, our ability to compete is in part dependent on our ability to continually offer enhanced and improved products.

The success of API's new product offerings will depend upon several factors, including our ability to:

- accurately anticipate customer needs;
- innovate and develop new technologies and applications;
- successfully commercialize new technologies in a timely manner;
- price API's products competitively and manufacture and deliver API's products in sufficient volumes and on time; and
- differentiate API's offerings from API's competitors' offerings.

Some of API's products are used by API's customers to develop, test and manufacture their products. We therefore must anticipate industry trends and develop products in advance of the commercialization of API's customers' products. In developing any new product, we may be required to make a substantial investment before we can determine the commercial viability of the new product. If we fail to accurately foresee API's customers' needs and future activities, we may invest heavily in research and development of products that do not lead to significant revenues.

API's inability to find new customers or retain existing customers could have a material adverse effect on API's business.

Customers normally purchase API's products and incorporate them into products that they, in turn, sell in their own markets on an ongoing basis. As a result, API's historical sales have been dependent upon the success of its customers' products and the future performance of the legacy API business is dependent upon our success in finding new customers and receiving new orders from existing customers.

In several of API's markets, quality and/or reliability of API's products are a major concern for API's customers, not only upon the initial manufacture of the product, but for the life of the product. Many of API's products are used in remote locations for higher value assembly, making servicing of API's products unfeasible. Any failure of the quality and/or reliability of API's products could have an adverse effect on our business.

If API's customers do not qualify API's products or if their customers do not qualify their products, our results of operations may suffer.

Most of API's customers do not purchase API's products prior to qualification of API's products and satisfactory completion of factory audits and vendor evaluation. API's existing products, as well as each new product, must pass through varying levels of qualification with API's customers. In addition, because of the rapid technological changes in API's market, a customer may cancel or modify a design project before API begins large-scale manufacturing and receives revenues from the customer. It is unlikely that we would be able to recover the expenses for cancelled or unutilized custom design projects. It is difficult to predict with any certainty whether API's customers will delay or terminate product qualification or the frequency with which customers will cancel or modify their projects. Any such delay, cancellation or modification could have a negative effect on our results of operations.

In addition, once a customer qualifies a particular supplier's product or component, these potential customers design the product into their system, which is known as a design-in win. Suppliers whose products or components are not

designed in are unlikely to make sales to that customer until at least the adoption of a future redesigned system. Even then, many customers may be reluctant to incorporate entirely new products into their new systems, as doing so could involve significant additional

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redesign efforts and increased costs. If we fail to achieve design-in wins in potential customers' qualification processes, we will likely lose the opportunity for significant sales to those customers for a lengthy period of time. If the end user customers that purchase systems from API's customers fail to qualify or delay qualifications of any products sold by API's customers that contain API's products, our business could be harmed. The qualification and field testing of API's customers' systems by end user customers is long and unpredictable. This process is not under API's control or that of API's customers; and, as a result, the timing of API's sales is unpredictable. Any unanticipated delay in qualification of one of API's customers' products could result in the delay or cancellation of orders from API's customers for products included in their equipment, which could harm API's results of operations.

API's sales to overseas markets expose API to additional, unpredictable risks which could have a material adverse effect on our business and expose us to liability under the Foreign Corrupt Practices Act.

A portion of API's sales are being derived from overseas markets. These international sales are primarily focused in Asia, Europe and the Middle East. These operations are subject to unpredictable risks that are inherent in operating in foreign countries and which could have a material adverse effect on API's business, including the following:

- foreign countries could change regulations or impose currency restrictions and other restraints;
- changes in foreign currency exchange rates and hyperinflation or deflation in the foreign countries in which API operates;
- exchange controls;
- some countries impose burdensome tariffs and quotas;
- political changes and economic crises may lead to changes in the business environment in which API operates;
- international conflict, including terrorist acts, could significantly impact our financial condition and results of operations; and
- economic downturns, political instability and war or civil disturbances may disrupt distribution logistics or limit sales in individual markets.

In addition, API utilizes third-party distributors to act as API's representative for the geographic region that they have been assigned as well as value added resellers that have territorial restrictions. Significant terms and conditions of distributor agreements include FOB source, net 30 days payment terms, with no return or exchange rights, and no price protection. Since the product title transfers to the distributor at the time of shipment, the products are not considered inventory on consignment. Our success is dependent on these distributors finding new customers and receiving new orders from existing customers.

API is subject to the FCPA and other laws that prohibit improper payments to foreign governments and their officials for the purpose of obtaining or retaining business. API's activities in API's overseas markets create the risk of unauthorized payments or offers of payments by one of API's employees, consultants, sales agents or distributors, because these parties are not always subject to API's control. While it is API's policy to implement safeguards to discourage these practices, API's existing safeguards and any future improvements may prove to be less than effective, and API's employees, consultants, sales agents or distributors may engage in conduct for which API might be held responsible. Violations of the FCPA may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition. In addition, certain governmental authorities may seek to hold us liable for successor liability FCPA violations committed by companies in which we invest or that we acquire.

Customer demand for API's products is difficult to accurately forecast and, as a result, we may be unable to optimally match production with customer demand, which could adversely affect our business and financial results.

API makes planning and spending decisions, including determining the levels of business that API will seek and accept, production schedules, and inventory levels, component procurement commitments, personnel needs and other resource requirements, based on API's estimates of customer requirements. The short-term nature of commitments by many of API's customers and the possibility of unexpected changes in demand for their products reduce our ability to accurately estimate future customer requirements. On occasion, customers may require rapid increases in production, which can strain API's resources, cause API's manufacturing to be negatively impacted by materials shortages,

necessitate higher or more restrictive procurement commitments, increase API's manufacturing yield loss and scrapping of excess materials, and reduce API's gross margin. API may not have sufficient capacity at any given time to meet the volume demands of API's customers, or one or more of API's suppliers may not have sufficient capacity at any given time to meet API's volume demands. Conversely, a downturn in the markets in which API's customers compete can cause, and in the past have caused, API's customers to significantly reduce or delay the amount of products ordered from API or to cancel existing orders, leading to lower utilization of API's facilities. Because many of API's costs and operating expenses are relatively fixed, reduction in customer demand due to market downturns or other reasons would have a material adverse effect on our gross margin, operating income and cash flow.

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Customer orders and forecasts are subject to cancellation or modification at any time which could result in higher manufacturing costs.

API's sales are made primarily pursuant to standard purchase orders for delivery of products. However, by industry practice, orders may be canceled or modified at any time. When a customer cancels an order, they are responsible for all finished goods, all costs, direct and indirect, incurred by API, as well as a reasonable allowance for anticipated profits. No assurance can be given that we will receive these amounts after cancellation. Furthermore, uncertainty in customer forecasts of their demands and other factors may lead to delays and disruptions in manufacturing, which could result in delays in product shipments to customers and could adversely affect our business.

Fluctuations and changes in API's customers' demand are common in API's industry. Such fluctuations, as well as quality control problems experienced in API's manufacturing operations may cause API to experience delays and disruptions in API's manufacturing process and overall operations and reduce API's output capacity. As a result, product shipments could be delayed beyond the shipment schedules requested by API's customers or could be cancelled, which would negatively affect our sales, operating income, strategic position at customers, market share and reputation. In addition, disruptions, delays or cancellations could cause inefficient production which in turn could result in higher manufacturing costs, lower yields and potential excess and obsolete inventory or manufacturing equipment. In the past, API has experienced such delays, disruptions and cancellations.

API depends upon an outside contract manufacturer for a portion of the manufacturing process for some of API's products. Our operations and revenue related to these products could be adversely affected if API encounters problems with this contract manufacturer.

Many of API's products are manufactured internally. However API also relies upon a contract manufacturer in China to produce the finished portion of some of API's optoelectronic components. API's reliance on a contract manufacturer for these products makes API vulnerable to possible capacity constraints and reduced control over delivery schedules, manufacturing yields, manufacturing quality/controls and costs. If the contract manufacturer for API's products were unable or unwilling to manufacture API's products in required volumes and at high quality levels or to continue API's existing supply arrangement, API would have to identify, qualify and select an acceptable alternative contract manufacturer or move these manufacturing operations to API's internal manufacturing facilities. An alternative contract manufacturer may not be available to API when needed or may not be in a position to satisfy API's quality or production requirements on commercially reasonable terms, including price. Any significant interruption in manufacturing API's products would require API to reduce API's supply products to API's customers, which in turn would reduce our revenue, harm our relationships with the customers of these products and cause us to forego potential revenue opportunities.

API depends on key in-house manufacturing capabilities and a loss of these capabilities could have an adverse effect on our existing operations and new business growth.

API depends on key in-house manufacturing equipment and assembly processes. API believes that these key manufacturing and assembly processes give API the flexibility and responsiveness to meet API's customer delivery schedule and performance specification with a custom product. This value proposition is an important component of API's offering to API's customers. A loss of these capabilities could have an adverse effect on our existing operations and new business growth.

Changes in the spending priorities of the federal government can materially adversely affect API's business. For API's fiscal 2014, approximately 14% of API's sales were related to products and services purchased by the federal government directly or indirectly. API's business relies upon continued federal government expenditures on defense, intelligence, homeland security, aerospace and other programs that API supports. For fiscal 2013, API's sales to federal government contractors totaled 25% of sales. In addition, foreign military sales are affected by U.S. government regulations, regulations by purchasing foreign governments and political uncertainties in the U.S. and abroad. There can be no assurance that the federal government budget (including defense and military) will continue to grow or that sales of defense related items to foreign governments will continue at present levels. The terms of defense contracts with the U.S. government generally permit the government to terminate such contracts, with or without cause, at any time. Any unexpected termination of a significant U.S. government contract with a military contractor to which API sells API's products could have a material adverse effect on our business.

API faces intense competition which could negatively impact our results of operations and market share.

API competes with a range of companies in API's target markets, some of which have greater financial and marketing resources, and greater manufacturing capacity, as well as better-established relationships with customers, than API does.

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Because API specializes in custom high performance devices requiring a high degree of engineering expertise to meet the requirements of specific applications, API generally does not compete to any significant degree with other large United States, European or Pacific Rim high volume manufacturers of standard “off the shelf” optoelectronic components. We cannot assure you that API will be able to compete successfully in API’s markets against these or any future competitors.

API also faces competition from some of its customers who evaluate API’s capabilities against the merits of manufacturing products internally. Due to the fact that such customers are not seeking to make a profit directly from the manufacture of these products, they may have the ability to manufacture competitive products at a lower cost than API would charge such customers. As a result, these customers may purchase less of API’s products and there would be additional pressure to lower API’s selling prices which, accordingly, would negatively impact our revenue and gross margin.

Intense competition in API’s markets could result in aggressive business tactics by API’s competitors, including aggressively pricing their products or selling older inventory at a discount. If API’s current or future competitors utilize aggressive business tactics, including those described above, demand for API’s products could decline, API could experience delays or cancellations of customer orders, or we could be required to reduce API’s sales prices.

Acquisition and alliance activities by API’s competitors could disrupt our ongoing business.

From time to time, API’s competitors acquire or enter into exclusive arrangements with companies with whom API does business or may do business in the future. Reductions in the number of partners with whom API may do business in a particular context may reduce our ability to enter into critical alliances on attractive terms or at all, and the termination of an existing alliance by a business partner may disrupt our operations.

Decreases in average selling prices of API’s products may increase operating losses and net losses, particularly if API is not able to reduce API’s expenses commensurately.

The market for optical components and subsystems continues to be characterized by declining average selling prices resulting from factors such as increased price competition among optical component and subsystem manufacturers, excess capacity, the introduction of new products and increased unit volumes as manufacturers continue to deploy network and storage systems. In the last two years, API has observed a significant decline of average selling prices, primarily in the telecommunications market. API anticipates that average selling prices will continue to decrease in the future in response to product introductions by API’s competitors or API, or in response to other factors, including price pressures from significant customers. In order to sustain profitable operations, API must, therefore, reduce the cost of API’s current designs or continue to develop and introduce new products on a timely basis that incorporate features that can be sold at higher average selling prices. Failure to do so could cause our sales to decline and operating losses to increase.

API’s cost reduction efforts may not keep pace with competitive pricing pressures. To remain competitive, API must continually reduce the cost of manufacturing API’s products through design and engineering changes. API may not be successful in redesigning its products or delivering API’s products to market in a timely manner. We cannot assure you that any redesign will result in sufficient cost reductions enabling us to reduce the price of API’s products to remain competitive or positively contribute to operating results.

Shifts in API’s product mix may result in declines in gross profit.

API’s gross profit margins vary among API’s product platforms, and are generally highest on API’s Terahertz products. API’s overall gross profit has fluctuated from period to period as a result of shifts in product mix, the introduction of new products, decreases in average selling prices for older products and API’s ability to reduce product costs, and these fluctuations are expected to continue in the future. If API’s customers decide to buy more of API’s products with low gross profit margins and fewer of API’s products with high gross profit margins, our total gross profits could be adversely affected.

Environmental regulations could increase operating costs and additional capital expenditures and delay or interrupt operations.

The photonics industry, as well as the semiconductor industry in general, is subject to governmental regulations for the protection of the environment, including those relating to air and water quality, solid and hazardous waste handling, and the promotion of occupational safety. Various federal, state and local laws and regulations require that

API maintains certain environmental permits. While we believe that API has obtained all necessary environmental permits required to conduct API's manufacturing processes, if API was found to be in violation of these laws, we could be subject to governmental fines and liability for damages resulting from such violations.

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Changes in the aforementioned laws and regulations or the enactment of new laws, regulations or policies could require increases in operating costs and additional capital expenditures and could possibly entail delays or interruptions of our operations.

If API has insufficient proprietary rights or if API fails to protect those proprietary rights API has, our business would be materially harmed.

API's success and ability to compete is dependent in part on API's proprietary technology. API relies on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality agreements and internal procedures, to establish and protect API's proprietary rights. For example, API utilizes proprietary design rules and processing steps in, among other things, the development and fabrication of API's PIN photodiodes, APD photodiodes and API's THz systems and sensors. In addition, API's products rely upon over 200 patents or patents pending. There can be no assurance that any issued patents will provide API with significant competitive advantages, or that challenges will not be instituted against the validity or enforceability of any patent utilized by API, or, if instituted, that such challenges will not be successful. The cost of litigation to uphold the validity and to prevent the infringement of a patent could be substantial and could have a material adverse effect on our operating results. Furthermore, there can be no assurance that API's technology, which API is constantly developing, will not infringe on patents or rights owned by others, licenses to which might not be available to API. While API has conducted limited due diligence and has conferred with experts with respect to, among other things, API's proprietary materials which API incorporates into API's PIN photodiodes, APD photodiodes and API's THz systems and sensors, there can be no assurance that API has not overlooked or misinterpreted the status of the proprietary rights and intellectual property of others with respect to these products.

The steps API has taken to protect API's intellectual property may not adequately prevent misappropriation or ensure that others will not develop competitive technologies or products. Other companies may be investigating or developing other technologies that are similar to API's own. It is possible that patents may not be issued from any of API's pending applications or those API may file in the future and, if patents are issued, the claims allowed may not be sufficiently broad to deter or prohibit others from making, using or selling products that are similar to API's. API does not own patents in every country in which API sell or distribute API's products, and thus others may be able to offer identical products in countries where API does not have intellectual property protection. In addition, the laws of some territories in which API's products are or may be developed, manufactured or sold, including Europe, Asia-Pacific or Latin America, may not protect API's products and intellectual property rights to the same extent as the laws of the United States.

In some cases, API may rely on trade secrets to protect API's innovations. There can be no assurance that trade secrets will be established, that secrecy obligations will be honored or that others will not independently develop similar or superior technology. To the extent that consultants, key employees or other third parties apply technological information independently developed by them or by others to API's projects, disputes might arise as to the proprietary rights to such information which may not be resolved in our favor.

Pursuing infringers of API's intellectual property rights can be difficult and costly.

Policing unauthorized use of API's technology is difficult and API cannot be certain that the steps API has taken will prevent the misappropriation, unauthorized use or other infringement of API's intellectual property rights. Pursuing infringers of API's proprietary rights could result in significant litigation costs, and any failure to pursue infringers could result in our competitors utilizing API's technology and offering similar products, potentially resulting in loss of a competitive advantage and decreased sales.

Despite API's efforts to protect API's proprietary rights, existing patent, copyright, trademark and trade secret laws afford only limited protection. Further, we may not be able to effectively protect API's intellectual property rights from misappropriation or other infringement in foreign countries where API has not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable, or may not protect API's proprietary rights as fully as U.S. law. API seeks to secure, to the extent possible, comparable intellectual property protections in China and other areas in which API operates. Moreover, the level of protection afforded by patent and other laws in countries such as China may not be comparable to that afforded in the U.S.

Protecting API's intellectual property is difficult especially after API's employees or API's third-party contractors end their employment or engagement. API may have employees leave API and go to work for competitors. Attempts may be made to copy or reverse-engineer aspects of API's products or to obtain and use information that API regards as proprietary. Accordingly, we may not be able to prevent misappropriation of API's technology or prevent others from developing similar technology.



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If API fails to obtain the right to use the intellectual property rights of others which are necessary to operate API's business, and to protect their intellectual property, our business and results of operations will be adversely affected. In the past, API has licensed certain Terahertz technology for use in API's products. In the future, we may choose, or be required, to license technology or intellectual property from third parties in connection with the development of API's products. We cannot assure you that third-party licenses will be available on commercially reasonable terms, if at all. API's competitors may be able to obtain licenses, or cross-license their technology, on better terms than we can, which could put API at a competitive disadvantage. Also, API typically enters into confidentiality agreements with such third parties in which API agrees to protect and maintain their proprietary and confidential information, including requiring API's employees to enter into agreements protecting such information. There can be no assurance that the confidentiality agreements will not be breached by any of API's employees or that such third parties will not make claims that their proprietary information has been disclosed.

We may be liable for damages based on product liability claims relating to defects in API's products, which might be brought against us directly, or against API's customers in their end-use markets. Such claims could result in a loss of customers in addition to substantial liability in damages.

API's products are complex and undergo quality testing as well as formal qualification, both by API's customers and by API. However, defects may occur from time to time. API's customers' testing procedures are limited to evaluating API's products under likely and foreseeable failure scenarios and over varying amounts of time. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, API's products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing or other unforeseen reasons. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. In addition, we may in certain circumstances honor warranty claims after the warranty has expired or for problems not covered by warranty in order to maintain customer relationships. Any significant product failure could result in lost future sales of the affected product and other products, as well as customer relations problems, litigation and damage to our reputation.

In addition, API's products are typically embedded in, or deployed in conjunction with, API's customers' products, which incorporate a variety of components, modules and subsystems and may be expected to interoperate with modules produced by third parties. As a result, not all defects are immediately detectable, and, when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of API's engineering personnel from API's product development efforts and cause significant customer relations problems or loss of customers, all of which would harm our business.

Furthermore, many of API's products may provide critical performance attributes to API's customers' products that will be sold to end users who could potentially bring product liability suits in which API could be named as a defendant. The sale of these products involves the risk of product liability claims. If a person were to bring a product liability suit against one of API's customers, this customer may attempt to seek contribution from us. A person may also bring a product liability claim directly against us. A successful product liability claim or series of claims against us in excess of our insurance coverage for payments, for which we are not otherwise indemnified, could have a material adverse effect on our financial condition or results of operations.

API is increasingly dependent on information technology systems and infrastructure.

API relies to a large extent on sophisticated information technology systems and infrastructure. The size and complexity of these systems make them potentially vulnerable to breakdown, malicious intrusion, and random attack. Likewise, confidentiality or data privacy breaches by employees or others with permitted access to API's systems may pose a risk that trade secrets, personal information, or other sensitive data may be exposed to unauthorized persons or to the public. While API has invested in the protection of data and information technology, there can be no assurance that API's efforts will prevent breakdowns or breaches in API's systems that could adversely affect our business.

API has incurred significant losses in prior periods.

API has incurred significant losses in prior periods. API recorded a net loss of \$1,337,000 for the nine months ended December 26, 2014 and ended the period with an accumulated deficit of \$49.8 million. In addition, API recorded net losses of \$4.3 million and \$4.4 million for the years ended March 31, 2014 and 2013, respectively. There can be no

assurance that API's business will have sufficient revenue growth to offset expenses to contribute positively to our profitability in future periods.

**RISKS RELATING TO THE MERGER**

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The failure to integrate successfully API's business in the expected timeframe would adversely affect the combined company's future results and the market price of the combined company's common stock following the Merger. The success of the Merger will depend, in large part, on sales of the combined company's products and on the ability of the combined company following the Merger to realize the anticipated benefits, including annual net operating synergies and cost reductions from combining our business with API's business. To realize these anticipated benefits, the combined company must successfully integrate API's business. This integration will be complex and time-consuming.

The failure to successfully integrate and manage the challenges presented by the integration process may result in the combined company's failure to achieve some or all of the anticipated benefits of the Merger. Potential difficulties that may be encountered in the integration process include the following:

- lost sales and customers as a result of customers of either of the two companies deciding not to do business with the combined company;
- complexities associated with managing the larger combined company with distant business locations;
- integrating personnel from the two companies while maintaining focus on providing consistent, high quality products;
- the loss of key employees;
- potential unknown liabilities and unforeseen expenses, delays or regulatory conditions associated with the Merger; and
- performance shortfalls at one or both of the companies as a result of the diversion of management's attention caused by completing the Merger and integrating the companies' operations.

If any of these events were to occur, the ability of the combined company to maintain relationships with customers, suppliers and employees or the combined company's ability to achieve the anticipated benefits of the Merger could be adversely affected, or could reduce the combined company's earnings or otherwise adversely affect its business and financial results after the Merger and, as a result, adversely affect the market price of the combined company's common stock.

Customer uncertainties related to the operation of Luna after the Merger could adversely affect our businesses, revenues and gross margins.

If there is uncertainty among our customers and API's customers regarding the operation of Luna following the Merger, they may delay or defer purchasing decisions or elect to switch to other suppliers. In particular, prospective customers could be reluctant to purchase the products and services of the combined company due to uncertainty about the direction of the combined company's offerings and willingness to support existing products. To the extent that the Merger has created, or in the future creates, uncertainty among those persons and organizations contemplating purchases such that customers delay, defer or change purchase decisions in connection with the Merger, our revenues would be adversely affected. Customer assurances may be made by us to address their customers' uncertainty about the direction of the combined company's product and related support offerings, which may result in additional obligations. As a result of any of these actions, our quarterly revenues and net earnings could be substantially below market expectations and a decline in our stock price could result.

The market price for shares of our common stock following the Merger may be affected by factors different from those affecting the market price for shares of our common stock prior to the Merger.

The risks associated with the combined company following the Merger may affect the results of operations of the combined company differently than they could affect the results of operations of each of us and API as separate companies. Additionally, our results of operations following the Merger may be affected by additional or different factors than those that currently affect our results of operations, including, but not limited to: complexities associated with managing the larger, more complex, combined business; integrating personnel from the two companies while maintaining focus on providing products and services; and potential performance shortfalls resulting from the diversion of management's attention caused by integrating the companies' operations.

**RISKS RELATING TO OUR COMMON STOCK**

If there are substantial sales of our common stock, or the perception that such sales may occur, our stock price could decline.

If any of our stockholders were to sell substantial amounts of our common stock, the market price of our common stock may decline, which might make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. Substantial sales of our common stock, or the perception that such sales may occur, may have a material adverse effect on the prevailing market price of our common stock.

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Pursuant to an Investor Rights Agreement, we filed a Form S-3 registration statement in 2014 registering the potential resale of an aggregate of up to approximately 6.3 million shares of our common stock by our then two largest stockholders, Carilion Clinic, or Carilion and Dr. Kent Murphy. This registration statement has been declared effective by the Securities and Exchange Commission, and Dr. Murphy has sold substantially all of his approximately 2.8 million shares included in the registration statement. Carilion continues to hold its approximately 3.5 million shares covered by the registration statement (including approximately 1.3 million shares issuable to Carilion upon conversion of shares of Series A Convertible Preferred Stock that Carilion holds). Because the registration statement is effective, these shares may be sold freely in the public market. Any sales of these shares, or the perception that future sales of shares may occur by Carilion or any of our other significant stockholders, may have a material adverse effect on the market price of our stock. Any such continuing material adverse effect on the market price of our stock could impair our ability to comply with NASDAQ's continuing listing standards in respect of our minimum stock price, as further described below.

Furthermore, the common stock we issued in the Merger has been registered with the SEC on a Form S-4 registration statement. As a result, those shares are immediately available for resale in the public market. Former API common stockholders, collectively, received a number of Luna shares equal to approximately 44% of the number of outstanding shares of our common stock prior to the Merger. Former API stockholders may sell the stock they received in the Merger in the public markets. If this occurs, or if there is a perception in the market that such sales may occur, the market price of our common stock may decline.

We may become involved in securities class action litigation that could divert management's attention and harm our business and our insurance coverage may not be sufficient to cover all costs and damages.

The stock market has from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of technology companies. These broad market fluctuations may cause the market price of our common stock to decline. In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. Securities class litigation also often follows certain significant business transactions, such as the sale of a business division or a change in control transaction. We may become involved in this type of litigation in the future. Litigation often is expensive and diverts management's attention and resources, which could adversely affect our business.

We may not be able to comply with all applicable listing requirements or standards of The NASDAQ Capital Market and NASDAQ could delist our common stock.

Our common stock is listed on The NASDAQ Capital Market. In order to maintain that listing, we must satisfy minimum financial and other continued listing requirements and standards. There can be no assurances that we will be able to comply with applicable listing standards. In the event that our common stock is not eligible for quotation on another market or exchange, trading of our common stock could be conducted in the over-the-counter market or on an electronic bulletin board established for unlisted securities such as the Pink Sheets or the OTC Bulletin Board. In such event, it could become more difficult to dispose of, or obtain accurate price quotations for, our common stock, and there would likely also be a reduction in our coverage by security analysts and the news media, which could cause the price of our common stock to decline further. Also, it may be difficult for us to raise additional capital if we are not listed on a major exchange.

Our common stock price has been volatile and we expect that the price of our common stock will fluctuate substantially in the future, which could cause you to lose all or a substantial part of your investment.

The public trading price for our common stock is volatile and may fluctuate significantly. Since January 1, 2009, our common stock has traded between a high of \$5.00 per share and a low of \$0.26 per share. Among the factors, many of which we cannot control, that could cause material fluctuations in the market price for our common stock are:

- sales of our common stock by our significant stockholders, or the perception that such sales may occur, including sales pursuant to the Form S-3 registration statement or sales of shares issued in the Merger, as described above;
- changes in earnings estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' earnings estimates;
- changes in our status as an entity eligible to receive SBIR contracts and grants;

quarterly variations in our or our competitors' results of operations;  
general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors;  
announcements by us, or by our competitors, of acquisitions, new products, significant contracts, commercial relationships or capital commitments;  
pending or threatened litigation;

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any major change in our board of directors or management or any competing proxy solicitations for director nominees;

- changes in governmental regulations or in the status of our regulatory approvals;
- announcements related to patents issued to us or our competitors;
- a lack of, limited or negative industry or securities analyst coverage;
- discussions of our company or our stock price by the financial and scientific press and online investor communities such as chat rooms; and
- general developments in our industry.

In addition, the stock prices of many technology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These factors may materially and adversely affect the market price of our common stock.

If our internal control over financial reporting is found not to be effective or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls, investors could lose confidence in our financial reports, and our stock price may be adversely affected.

Section 404 of the Sarbanes-Oxley Act of 2002 requires us to include an internal control report with our Annual Report on Form 10-K. That report must include management's assessment of the effectiveness of our internal control over financial reporting as of the end of the fiscal year.

We evaluate our existing internal control over financial reporting based on the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. During the course of our ongoing evaluation of the internal controls, we may identify areas requiring improvement, and may have to design enhanced processes and controls to address issues identified through this review. Remedying any deficiencies, significant deficiencies or material weaknesses that we identify may require us to incur significant costs and expend significant time and management resources. We cannot assure you that any of the measures we implement to remedy any such deficiencies will effectively mitigate or remedy such deficiencies. Investors could lose confidence in our financial reports, and our stock price may be adversely affected, if our internal controls over financial reporting are found not to be effective by management or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls.

Anti-takeover provisions in our amended and restated certificate of incorporation and bylaws and Delaware law could discourage or prevent a change in control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and bylaws and Delaware law contain provisions that might delay or prevent a change in control, discourage bids at a premium over the market price of our common stock and adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. These provisions include:

- a classified board of directors serving staggered terms;
- advance notice requirements to stockholders for matters to be brought at stockholder meetings;
- a supermajority stockholder vote requirement for amending certain provisions of our amended and restated certificate of incorporation and bylaws; and
- the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer.

We are also subject to provisions of the Delaware General Corporation law that, in general, prohibit any business combination with a beneficial owner of 15% or more of our common stock for three years unless the holder's acquisition of our stock was approved in advance by our board of directors or certain other conditions are satisfied. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

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(a) Unregistered Sales of Equity Securities during the Three Months Ended March 31, 2015

Common Stock Dividend Payable to Carilion

We issued 1,321,514 shares of Series A Preferred Stock, par value \$0.001 per share, to Carilion Clinic in January 2010, which shares were issued in reliance on the exemptions from registration under the Securities Act provided by Sections 3(a)(9) and 4(2) thereof. The Series A Preferred Stock accrues dividends at the rate of approximately \$0.2815 per share per annum, payable quarterly in arrears. Accrued dividends are payable in shares of our common stock, with the number of shares being equal to the quotient of (i) the cumulative aggregate balance of accrued but unpaid dividends on each share of Series A Preferred Stock divided by (ii) the conversion price of the Series A Preferred Stock, which is currently \$4.69159 per share. For the period from January 12, 2010, the original issue date of the Series A Preferred Stock, through March 31, 2015, the Series A Preferred Stock issued to Carilion has accrued \$848,914 in dividends. The accrued dividend as of March 31, 2015 will be paid by the issuance of 412,560 shares of our common stock, which we will issue at Carilion's written request. As the Series A Preferred Stock was issued in reliance on the exemption provided by Section 3(a)(9), the shares of common stock payable as dividends will also be exempt from registration in reliance on Section 3(a)(9) of the Securities Act.

(b) Use of Proceeds from Sale of Registered Equity Securities

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

The exhibits listed on the Exhibit Index hereto are filed or incorporated by reference (as stated therein) as part of this Quarterly Report on Form 10-Q.

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SIGNATURES

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

Date: May 14, 2015

Luna Innovations Incorporated

By: /s/ Dale Messick

Dale Messick

Chief Financial Officer

(principal financial and accounting officer and duly authorized officer)

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EXHIBIT INDEX

Exhibit Number	Description
2.1(1)*	Agreement and Plan of Merger and Reorganization, dated as of January 30, 2015, by and among Luna Innovations Incorporated, a Delaware corporation, API Merger Sub, a Delaware corporation and a wholly owned subsidiary of Luna Innovations Incorporated, and Advanced Photonix, Inc., a Delaware corporation (Exhibit 2.1).
3.1(1)	Amendment to Amended and Restated Bylaws of Luna Innovations Incorporated (Exhibit 3.1).
10.1(1)	Form of Voting Agreement by and between Luna Innovations Incorporated, Advanced Photonix, Inc. and directors and executive officers of Advanced Photonix, Inc., dated as of January 30, 2015 (Exhibit 10.1).
10.2(1)	Form of Voting Agreement by and between Luna Innovations Incorporated, Advanced Photonix, Inc. and directors and executive officers of Luna Innovations Incorporated, dated as of January 30, 2015 (Exhibit 10.2)
10.3	First Amendment to Industrial Lease Agreement by and between the Economic Development Authority of Montgomery County, Virginia and Luna Innovation Incorporated, dated January 20, 2015.
10.4	Sixth Amendment to Luna Innovations Lease of Riverside Center, dated January 20, 2015, by and between Carilion Clinic Properties, LLC and Luna Innovations Incorporated
10.5**	2015 Senior Management Incentive Compensation Plan.
31.1	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1***	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2***	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets at December 31, 2014 and March 31, 2015, (ii) Consolidated Statements of Operations for the three months ended March 31, 2014 and 2015, (iii) Consolidated Statements of Cash Flows for the three months ended March 31, 2014 and 2015 and (iv) Notes to Unaudited Consolidated Financial Statements.

(1) Incorporated by reference to the exhibit to the Registrant's Current Report on Form 8-K, Commission File No. 000-52008, filed on February 2, 2015 (reporting under Items 1.01, 5.03 and 7.01). The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

\* Pursuant to Item 601(b)(2) of Regulation S-K promulgated by the SEC, certain exhibits and schedules to this agreement have been omitted, the Registrant hereby agrees to furnish supplementary to the SEC, upon its request, any or all of such omitted exhibits or schedules.

\*\* Confidential treatment has been granted with respect to portions of this exhibit, indicated by asterisks, which has been filed separately with the SEC upon request.

\*\*\* These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

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