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

FORM 10-Q

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

For the quarterly period ended June 30, 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	54-1560050
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

301 First Street SW, Suite 200
Roanoke, VA 24011
(Address of Principal Executive Offices)
(540) 769-8400
(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ý 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). ý 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 o Accelerated filer o

Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company ý

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ¨ Yes ý 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. ý 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 August 12, 2015, there were 27,558,569 shares of the registrant's common stock outstanding.

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LUNA INNOVATIONS INCORPORATED
QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTER ENDED JUNE 30, 2015
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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Luna Innovations Incorporated
Consolidated Balance Sheets

	December 31, 2014	June 30, 2015 (unaudited)
Assets		
Current assets:		
Cash and cash equivalents	$14,116,969	$7,512,513
Accounts receivable, net	5,689,615	9,330,045
Inventory	3,364,233	9,955,920
Prepaid expenses and other current assets	715,302	1,933,984
Total current assets	23,886,119	28,732,462
Property and equipment, net	3,497,057	6,719,424
Intangible assets, net	199,277	11,528,262
Goodwill	—	614,184
Other assets	1,995	88,948
Total assets	$27,584,448	$47,683,280
Liabilities and stockholders' equity		
Liabilities:		
Current liabilities:		
Current portion of long-term debt obligation	$625,000	$1,500,000
Current portion of capital lease obligation	70,725	61,552
Accounts payable	1,447,177	4,074,732
Accrued liabilities	5,468,849	6,179,975
Deferred revenue	861,081	706,892
Total current liabilities	8,472,832	12,523,151
Long-term deferred rent	1,570,377	1,507,814
Long-term debt	—	4,375,000
Long-term capital lease obligation	39,582	45,922
Total liabilities	10,082,791	18,451,887
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value $ 0.001, 1,321,514 shares authorized, issued and outstanding at December 31, 2014 and June 30, 2015	1,322	1,322
Common stock, par value $ 0.001, 100,000,000 shares authorized, 15,110,924 and 27,558,569 shares issued, 15,088,199 and 27,505,919 shares outstanding at December 31, 2014 and June 30, 2015	15,541	28,052
Less treasury stock at cost, 22,725 and 52,650 shares at December 31, 2014 and June 30, 2015	(32,221)	(65,334)
Additional paid-in capital	64,147,666	80,734,306
Accumulated deficit	(46,630,651)	(51,466,953)
Total stockholders' equity	17,501,657	29,231,393
Total liabilities and stockholders' equity	$27,584,448	$47,683,280

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

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Luna Innovations Incorporated
Consolidated Statements of Operations

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014 (unaudited)	2015	2014 (unaudited)	2015
Revenues:				
Technology development	$3,219,435	$3,728,271	$5,894,887	$6,603,786
Products and licensing	2,008,862	6,297,475	3,805,291	8,761,062
Total revenues	5,228,297	10,025,746	9,700,178	15,364,848
Cost of revenues:				
Technology development	2,388,801	2,576,145	4,413,956	4,659,769
Products and licensing	851,490	3,252,627	1,746,130	4,219,317
Total cost of revenues	3,240,291	5,828,772	6,160,086	8,879,086
Gross profit	1,988,006	4,196,974	3,540,092	6,485,762
Operating expense:				
Selling, general and administrative	2,466,626	5,518,656	5,221,704	10,087,609
Research, development and engineering	484,509	801,221	1,233,663	1,136,111
Total operating expense	2,951,135	6,319,877	6,455,367	11,223,720
Operating loss	(963,129)	(2,122,903)	(2,915,275)	(4,737,958)
Other income/(expense):				
Other income, net	29,325	4,264	111,431	4,109
Interest expense	(27,302)	(49,966)	(59,667)	(59,103)
Total other income/(expense)	2,023	(45,702)	51,764	(54,994)
Loss from continuing operations, before income taxes	(961,106)	(2,168,605)	(2,863,511)	(4,792,952)
Income tax (benefit)/expense	(375,983)	—	(1,145,173)	2,808
Net loss from continuing operations	(585,123)	(2,168,605)	(1,718,338)	(4,795,760)
(Loss)/income from discontinued operations, net of income taxes of $0.4 million, $0, $1.3 million, and $0	(330,716)	—	9,342,723	—
Net (loss)/income	(915,839)	(2,168,605)	7,624,385	(4,795,760)
Preferred stock dividend	27,334	20,021	56,870	46,581
Net (loss)/income attributable to common stockholders	$(943,173)	$(2,188,626)	$7,567,515	$(4,842,341)
Net loss per share from continuing operations:				
Basic and diluted	$(0.04)	$(0.10)	$(0.12)	$(0.26)
Net (loss)/income per share from discontinued operations:				
Basic and diluted	$(0.02)	$—	$0.63	$—
Net (loss)/income per share attributable to common stockholders:				
Basic and diluted	$(0.06)	$(0.10)	$0.51	$(0.26)
Weighted average common shares and common equivalent shares outstanding:				
Basic and diluted	14,817,084	21,997,768	14,722,474	18,577,006

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

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Luna Innovations Incorporated
Consolidated Statements of Cash Flows

	Six Months Ended June 30,	
	2014	2015
	(unaudited)	
Cash flows used in operating activities		
Net income/(loss)	$7,624,385	$(4,795,760)
Adjustments to reconcile net income/(loss) to net cash used in operating activities		
Depreciation and amortization	336,564	824,251
Share-based compensation	488,593	571,439
Bad debt expense	—	10,375
Gain on sale of discontinued operations, net of income taxes	(9,370,799)	—
Tax benefit from utilization of net operating loss	(1,163,301)	—
Change in assets and liabilities		
Accounts receivable	(73,857)	(335,811)
Inventory	(6,796)	(1,345,687)
Other current assets	72,141	(358,794)
Other assets	37,584	—
Accounts payable and accrued expenses	(761,149)	(1,271,686)
Deferred revenue	(299,712)	(154,189)
Net cash used in operating activities	(3,116,347)	(6,855,862)
Cash flows provided by investing activities		
Acquisition of property and equipment	(135,136)	(50,175)
Intangible property costs	(138,118)	(123,578)
Proceeds from sale of discontinued operations, net of fees	10,927,268	—
Cash acquired in business combination	—	374,517
Net cash provided by investing activities	10,654,014	200,764
Cash flows provided by/(used in) financing activities		
Payments on capital lease obligations	(32,810)	(36,406)
Payment of debt obligations	(750,000)	(5,962,355)
Purchase of treasury stock	(32,221)	(33,113)
Borrowings under term loan	—	6,000,000
Proceeds from the exercise of options	173,796	82,516
Net cash (used in)/provided by financing activities	(641,235)	50,642
Net increase/(decrease) in cash and cash equivalents	6,896,432	(6,604,456)
Cash and cash equivalents—beginning of period	7,778,541	14,116,969
Cash and cash equivalents—end of period	$14,674,973	$7,512,513
Supplemental disclosure of cash flow information		
Cash paid for interest	$54,688	31,474
Shares of common stock issued for business combination		11,872,557
Dividend on preferred stock, 39,646 shares of common stock issuable for the six months ended June 30, 2014 and 2015	$56,870	$46,581
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. Following our merger with Advanced Photonix, Inc. ("API"), we also package optoelectronic semiconductors into high speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz (THz products) instrumentation. 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.

Unaudited Interim Financial Information

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United Stated of America (“U.S. GAAP”) for interim financial statements 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 June 30, 2015, results of operations for the three and six months ended June 30, 2014 and 2015, and cash flows for the six months ended June 30, 2014 and 2015. The results of operations for the three and six months ended June 30, 2015 include the results of API, Inc. from the date of the closing of our merger with API (See Note 2, below), and 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.

Business Combinations

We apply the provisions of Accounting Standards Codification 805, Business Combinations ("ASC 805"), in the accounting for acquisitions. ASC 805 requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of the assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in our Consolidated Statements of Operations. Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date, including estimates for intangible assets, contractual obligations assumed, restructuring liabilities, pre-acquisition contingencies, and contingent consideration, where applicable. Although we believe the assumptions and estimates we have made have been reasonable and appropriate, they are based in part on historical experience and information obtained from management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets we have acquired include: future

expected cash flows from product sales; customer contracts and acquired technologies; expected costs to develop in-process research and development into commercially viable products and estimated cash flows from the projects when completed; and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates, or actual results.

Goodwill and Intangible Assets

Goodwill and intangible assets with indefinite lives are not amortized but are tested for impairment on an annual basis or whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Purchased

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intangible assets with finite useful lives are amortized using the straight-line method over their estimated useful lives and reviewed for impairment as described above.

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 ("SVB") 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.

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 6.5 million and 6.4 million common stock equivalents (which include outstanding warrants, preferred stock and stock options) are not included for the quarters ended June 30, 2014 and 2015, respectively, as they are antidilutive to earnings per share due to our net loss from continuing operations. The effect of 6.5 million and 5.9 million common stock equivalents are not included for the six months ended June 30, 2014 and 2015, respectively, as they are considered anti-dilutive.

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 do not expect the adoption of this standard to have a significant impact 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. On July 9, 2015, the FASB approved a deferral of the effective date of ASU 2014-09

by one year; however, early adoption as of the original effective date will be permitted. We are currently evaluating the impact that the adoption of ASU 2014-09 will have on our consolidated financial statements.

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2. Merger With API

On May 8, 2015, we completed our merger with API (the "Merger") pursuant to the Agreement and Plan of Merger (the "Merger Agreement") for a total purchase consideration of $15.9 million. In accordance with the terms of the Merger Agreement, API shareholders received 0.31782 shares of our common stock for each share of API common stock they owned. The Merger has been accounted for under the acquisition method of accounting in accordance with ASC 805, with Luna treated as the accounting acquirer. We incurred $1.7 million and $3.5 million in Merger-related costs for the three and six months ended June 30, 2015, respectively, which are included within selling, general and administrative expenses in the Consolidated Statement of Operations.

The total purchase consideration of $15.9 million consists of the following:

	Purchase Consideration
Fair value of Luna common stock issued to API shareholders	$15,671,775
Fair value of vested API options assumed by Luna	187,879
Total purchase consideration	$15,859,654

Under the acquisition method of accounting, the total estimated purchase consideration is allocated to the acquired tangible and intangible assets and assumed liabilities based on their estimated fair values as of the acquisition date. Any excess of the fair value of assets acquired and liabilities assumed over the fair value of the acquisition consideration is recognized as a gain by the acquirer. We have completed a preliminary allocation of the purchase consideration with the assistance of a third-party valuation expert. The following allocation of the purchase consideration is subject to revision as additional information becomes known in the future.

	Preliminary Allocation of Purchase Consideration
Cash	$374,517
Accounts receivable	3,314,994
Inventory	5,246,000
Other current assets	859,888
Property and equipment	3,601,850
Identifiable intangible assets	11,600,000
Goodwill	614,184
Other assets	86,953
Accounts payable and accrued expenses	(4,592,804)
Debt	(5,212,355)
Other liabilities	(33,573)
Total purchase consideration	$15,859,654

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The preliminary identifiable intangible assets acquired and their estimated lives are as follows:

	Estimated Fair Value	Estimated Useful Life
Developed technology	$4,500,000	2-10 years
In-process research and development	3,900,000	3-10 years
Customer base	1,300,000	9-11 years
Trade names	1,500,000	10 years
Backlog	400,000	1 year
	$11,600,000	

Trade names and trademarks are considered a type of guarantee of a certain level of quality or performance represented by the API brand. Trade names and trademarks were valued using the "relief-from-royalty" method of income approach. This method is based on the assumption that in lieu of ownership, a market participant would be willing to pay a royalty in order to exploit the related benefits of this asset. A discount rate of 24.5% was used to discount the cash flows to the present value.

Developed technologies acquired primarily consist of API's existing technologies related to high speed optical receivers, optoelectronic systems, modules and components, and Terahertz solutions. The developed technologies of API were valued using both the "relief-from-royalty" method and the "multi-period excess earnings" method, under the income approach. This multi-period excess earnings method reflects the present value of the projected cash flows that are expected to be generated by the developed technologies less charges representing the contribution of other assets to those cash flows. A discount rate of 32.5% was used to discount the cash flows to the present value.

In-process research and development represents the estimated fair values of incomplete API research and development projects that had not reached technological feasibility as of the closing date of the Merger. In the future, the fair value of each project at the date of the closing of the Merger will be either amortized or impaired depending on whether the projects are completed or abandoned. The fair value of in-process research and development was determined using the multi-period excess earnings method. A discount rate of 37.5% was used to discount the cash flows to the present value.

Customer backlog represents the fair value of projected cash flows that will be derived from the sale of products under existing contracts and customer orders as of the closing date of the Merger. The fair value of the customer backlog was determined using the multi-period excess earnings method. A discount rate of 21.5% was used to discount the cash flows to the present value.

Customer relationships represent the fair value of projected cash flows that will be derived from the sale of products to API's existing customers as of the closing date of the Merger. Customer relationships were valued utilizing both a multi-period excess earnings method and the "distributor" method, under the income approach. Under this premise, the margin of a distributor within the industry is deemed to be the margin attributable to customer relationships. This isolates the cash flows attributable to the customer relationships that a market participant would be willing to pay for. A discount rate of 32.5% was used to discount the cash flows to the present value.

Pro forma consolidated results of operations

The following unaudited pro forma financial information presents combined results of operations for each of the periods presented as if the Merger had been completed on January 1, 2014. The pro forma information includes adjustments to depreciation expense for property and equipment acquired, to amortization expense for the intangible assets acquired, to interest expense for the new debt facility, and to eliminate the Merger transaction expenses recognized in each period. The pro forma data are for informational purposes only and are not necessarily indicative

of the consolidated results of operations of the combined business had the Merger actually occurred on January 1, 2014 or of the results of future operations of the combined business. For instance, planned or expected operational synergies following the Merger are not reflected in the pro forma information. Consequently, actual results will differ from the unaudited pro forma information presented below (amounts in $000s).

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	Three Months Ended June 30,		Six Months Ended June 30,	
	2014 (unaudited)	2015	2014 (unaudited)	2015
Revenue	$12,891	$12,444	$24,340	$24,232
Loss from continuing operations	$(1,239)	$(1,818)	$(3,860)	$(3,889)

3. 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 of our employees, many of whom were historically engaged in this development project. In connection with this sale, we incurred $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 $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 or loss before allocations.

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

	Three Months Ended		Six Months Ended	
	June 30, 2014 (unaudited)	June 30, 2015	June 30, 2014 (unaudited)	June 30, 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	—	—	(28,076)	—
(Loss)/gain on sale, net of $0.4 million, $0, $1.3 million, and $0 of related income taxes, respectively	(330,716)	—	9,370,799	—
Income from discontinued operations, net of income taxes	$(330,716)	$—	$9,342,723	$—

4. 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 write down inventory for estimated obsolescence or unmarketable inventory in an amount 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:

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	December 31, 2014	June 30, 2015 (unaudited)
Finished goods	$580,184	$2,557,060
Work-in-process	262,025	1,468,907
Raw materials	2,522,024	5,929,953
Total inventory	$3,364,233	$9,955,920

5. Accrued Liabilities

Accrued liabilities at December 31, 2014 and June 30, 2015 consist of the following:

	December 31, 2014	June 30, 2015 (unaudited)
Accrued compensation	$2,362,608	$2,675,952
Claims reserve	1,502,904	1,752,903
Accrued sub-contracts	244,218	226,800
Accrued professional fees	177,712	93,240
Accrued income tax	166,550	157,402
Deferred rent	182,340	134,641
Royalties	392,945	256,158
Warranty reserve	69,264	151,485
Accrued liabilities - other	370,308	731,394
Total accrued liabilities	$5,468,849	$6,179,975

6. Debt

Silicon Valley Bank Facility

We currently have a Loan and Security Agreement with 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 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%.

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

On May 8, 2015, we entered into the Sixth Loan Modification Agreement with SVB, under which we executed a new term loan in the principal amount of $6.0 million and used the proceeds principally to repay the previously outstanding indebtedness of API and other transaction related costs. The term loan bears interest at a floating rate of prime plus 2% and is to be repaid in 48 monthly installments of $125,000 plus accrued interest. The term loan includes a minimum liquidity covenant whereby we are required to maintain at each month end a ratio of cash plus 50% of accounts receivable greater than or equal to 1.75 times the outstanding principal balance of the loan. 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 June 30, 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 June 30, 2015, there were no events of default on the Credit Facility.

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The balance under the Term Loan at December 31, 2014 and June 30, 2015, was $0.6 million and $5.9 million, respectively. The effective rate of our Term Loan at June 30, 2015 was 5.25%.

The following table presents a summary of debt outstanding as of December 31, 2014 and June 30, 2015:

	December 31, 2014	June 30, 2015 (unaudited)
Silicon Valley Bank Term Loan	$625,000	$5,875,000
Less: current portion	625,000	1,500,000
Total long-term debt	$—	$4,375,000

The schedule of remaining principal payments under our term loan is as follows:

2015	$750,000
2016	1,500,000
2017	1,500,000
2018	1,500,000
2019	625,000
	$5,875,000

7. 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-Merton 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 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 six months ended June 30, 2014 and 2015 was estimated as of the grant date using the Black-Scholes option pricing model with the following assumptions:

	Six Months Ended June 30,	
	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	—%	—%

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A summary of the activity for our 2003 Stock Plan and 2006 Equity Incentive Plan is presented below for the six months ended June 30, 2015:

	Options Outstanding				Options Exercisable		
	Number of Shares	Price per Share Range	Weighted Average Exercise Price	Aggregate Intrinsic Value (1)	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	35,500	$1.27 - $1.45	$1.43				
Issued in exchange for API options	471,138	$1.38 - $9.03	$4.83				
Exercised	230,672	$0.35 - $1.74	$1.34				
Canceled	241,416	$0.35 - $7.30	$2.78				
Balance, June 30, 2015	4,324,181	$0.61 - $9.03	$2.31	$166,493	3,473,370	$2.52	$155,476

(1) The intrinsic value of an option represents the amount by which the market value of the stock exceeds the exercise 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 June 30, 2015, the outstanding stock options to purchase an aggregate of 4.3 million shares had a weighted-average remaining contractual term of 5.7 years, and the exercisable stock options to purchase an aggregate of 3.5 million shares had a weighted-average remaining contractual term of 5.0 years.

For the three months ended June 30, 2014 and 2015, we recognized $0.5 million and $0.6 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 $1.1 million in share-based compensation expense over the weighted-average remaining service period of 1.1 years for stock options outstanding as of June 30, 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	—	334,000	1.12	—	374,080
Vested	132,000	(132,000)	1.34	176,925	(176,925)
Repurchased	(29,925)	—	1.33	(39,800)	—
Forfeitures	—	(25,876)	1.35	—	(35,019)
Balance at June 30, 2015	230,738	704,124	$1.27	$320,240	$869,836

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The following details our equity transactions during the six months ended June 30, 2015:

	Preferred Stock		Common Stock		Treasury Stock		Additional Paid-in Capital
	Shares	$	Shares	$	Shares	$	$
Balance at January 1, 2015	1,321,514	1,322	15,088,199	15,541	22,725	(32,221)	64,147,666
Exercise of stock options	—	—	233,704	233	—	—	82,283
Share-based compensation	—	—	337,335	367	—	—	480,230
Non-cash compensation	—	—	—	—	—	—	129,803
Stock dividends to Carilion Clinic(1)	—	—	—	39	—	—	46,542
Issuance of stock to former API shareholders	—	—	11,872,557	11,872	—	—	15,659,903
Options issued in exchange for API options	—	—	—	—	—	—	187,879
Forfeitures of restricted stock grants	—	—	(25,876)	—	—	—	—
Purchase of treasury stock	—	—	—	—	29,925	(33,113)	—
Balance at June 30, 2015	1,321,514	1,322	27,505,919	28,052	52,650	(65,334)	80,734,306

(1) The stock dividends payable in connection with Carilion Clinic's Series A Preferred Stock will be issued subsequent to June 30, 2015. For the period from January 12, 2010, the original issue date of the Series A Preferred Stock, through June 30, 2015, the Series A Preferred Stock issued to Carilion has accrued $918,935 in dividends. The accrued and unpaid dividends as of June 30, 2015 will be paid by the issuance of 432,383 shares of our common stock upon Carilion's written request.

8. 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 June 30, 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 June 30,		Six Months Ended June 30,	
	2014	2015	2014	2015
	(unaudited)		(unaudited)	
Revenues:				
Technology development revenues	$3,219,435	$3,728,271	$5,894,887	$6,603,786
Products and licensing revenues	2,008,862	6,297,475	3,805,291	8,761,062
Total revenues	$5,228,297	$10,025,746	$9,700,178	$15,364,848
Technology development operating loss	$(1,007,494)	$(1,096,127)	$(2,535,140)	$(2,947,684)
Products and licensing operating loss	44,365	(1,026,776)	(380,135)	(1,790,274)
Total operating loss	$(963,129)	$(2,122,903)	$(2,915,275)	$(4,737,958)
Depreciation, technology development	$53,992	$104,217	$110,735	$203,854
Depreciation, products and licensing	$33,690	$189,276	$71,790	$225,803
Amortization, technology development	$28,681	$37,434	$92,974	$57,222
Amortization, products and licensing	$17,896	$328,242	$61,065	$337,371

The table below presents assets for reportable segments:

	December 31, 2014	June 30, 2015 (unaudited)
Total segment assets:		
Technology development	$16,503,316	$13,264,452
Products and licensing	11,081,132	34,418,828
Total	$27,584,448	$47,683,280
Property plant and equipment, and intangible assets, technology development	$2,122,157	$4,377,690
Property plant and equipment, and intangible assets, products and licensing	$1,574,177	$14,484,178

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

The U.S. government accounted for approximately 37% and 63% of total consolidated revenues for the three months ended June 30, 2015 and 2014, respectively and approximately 45% and 61% for the six months ended June 30, 2015 and 2014, respectively.

International revenues (customers outside the United States) accounted for approximately 17% and 16% of total consolidated revenues for the three months ended June 30, 2015 and 2014, respectively and approximately 16% and 17% for the six months ended June 30, 2015 and 2014, respectively.

9. 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 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. In June 2015, we received from the Defense Contract Management Agency (the "DCMA") a final determination and demand for payment of penalties, interest, and over billing in the aggregate amount of $1.1 million. In July 2015, we filed an appeal with the Armed Services Board of Contract Appeals. Because of the early stage of the appeal process, we are unable to estimate the amount of loss, if any, that may be realized.

In April 2015, we executed two non-cancelable purchase orders totaling $1.4 million for multiple shipments of tunable lasers to be delivered over the following 18-month period. At June 30, 2015, approximately $1.3 million of this commitment remained.

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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 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.

10. Correction of Immaterial Error Related To Disallowed Costs For Cost Reimbursement Type Contracts

As described in Note 9, in June 2015, we received a letter of final determination from the DCMA regarding the allowability of certain costs we included in our billings under cost-plus type research contracts during 2007. Following the company's identification of the inclusion of unallowable costs for periods subsequent to 2007, we recalculated our billing rates to exclude those costs and have begun submitting updated analyses for those subsequent years to DCMA. We currently estimate that our allowed billings under cost-plus type contracts for those subsequent periods will be reduced by approximately $1.5 million compared to amounts actually billed due to the exclusion of those unallowable costs for the years 2007 through 2010. We do not estimate such exclusion to have a significant impact on the aggregate allowed billing amounts subsequent to 2010. We have deemed the correction of the error associated with our estimated over-billing for prior periods to be immaterial to previously issued financial statements and, in accordance with SEC Accounting Bulletin Topic 1N- Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements, we have reflected such correction as an adjustment to beginning accrued liabilities and retained earnings of $1.5 million as of January 1, 2014.

	As of January 1, 2014	
	As Originally Reported	As Corrected
Accrued liabilities	$3,546,585	$5,049,489
Accumulated deficit	$(51,010,357)	$(52,513,261)

Our allowable billing rates have currently been approved by DCMA through 2008. Allowable amounts billed for subsequent periods may be revised in the future as audits for those periods are completed and final billing rates determined by DCMA for those periods.

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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 a merger with Advanced Photonix, Inc. ("API"), pursuant to the Agreement and Plan of Merger and Reorganization (the "Merger Agreement"), dated as of January 30, 2015, by and among Luna, API and API Merger Sub, Inc., our wholly-owned subsidiary ("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 our wholly-owned subsidiary. In the merger, former API stockholders received 0.31782 shares of our 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 method of accounting in accordance with Financial Accounting Standards Board Accounting Standard Topic 805, Business Combinations, ("ASC 805") 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.

Overview of Our Business

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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. As a result of our merger with API, we also package optoelectronic semiconductors into high-speed optical receivers ("HSOR" products), custom optoelectronic subsystems ("Optosolutions" products), and Terahertz ("THz") instrumentation. Our HSOR transmission products are deployed in the internet infrastructure to enable the high-speed bandwidth necessary to support video and data. Our Optosolutions products are sold to scientific instrumentation manufacturers for various applications such as metrology, currency validation, flame monitoring, and temperature sensing. 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 38% and 63% of our total revenues for the three months ended June 30, 2014 and 2015, respectively and 39% and 57% of our total revenues for the six months ended June 30, 2014 and 2015, respectively. The change in revenue mix was primarily a result of the merger, inasmuch as the substantial majority of revenues from API's legacy business relates to product sales, and to a lesser extent, growth in product sales from Luna's legacy business.

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 62% and 37% of our total revenues for the three months ended June 30, 2014 and 2015, respectively and approximately 61% and 43% of our total revenues for the six months ended June 30, 2014 and 2015, respectively. Most of the government funding for our Technology Development segment is derived from the Small Business Innovation Research ("SBIR") program coordinated by the U.S. Small Business Administration ("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 $3.2 million and $3.7 million for the three months ended June 30, 2014 and 2015, respectively, and $5.9 million and $6.6 million for the six months ended June 30, 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 June 30, 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.

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.

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 and beyond. For example, the Budget

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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 62% and 37% of our total revenues for the three months ended June 30, 2014 and 2015, and 61% and 43% of our total revenues for the six months ended June 30, 2014 and 2015, respectively. Technology development revenues declined as a percentage of our total revenues following our merger with API in May 2015, as API's legacy revenues primarily consist of product revenues.

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 38% and 63% of our total revenues for the three months ended June 30, 2014 and 2015, and 39% and 57% of our total revenues for the six months ended June 30, 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.

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

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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.

Business Combinations

We apply the provisions of ASC 805 in the accounting for acquisitions. ASC 805 requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of the assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in our Consolidated Statements of Operations. Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date, including estimates for intangible assets, contractual obligations assumed, restructuring liabilities, pre-acquisition contingencies, and contingent consideration, where applicable. Although we believe the assumptions and estimates we have made have been reasonable and appropriate, they are based in part on historical experience and information obtained from management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets we have acquired include: future expected cash flows from product sales; customer contracts and acquired technologies; expected costs to develop in-process research and development into commercially viable products and estimated cash flows from the projects when completed; and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates, or actual results.

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 other material changes to the descriptions therein.

Results of Operations

Three Months Ended June 30, 2014 Compared to Three Months Ended June 30, 2015

Revenues

	Three Months Ended June 30,				
	2014	2015	$ Difference	% Difference	
Revenues:					
Technology development revenues	$3,219,435	$3,728,271	$508,836	16	%
Products and licensing revenues	2,008,862	6,297,475	4,288,613	213	%
Total revenues	$5,228,297	$10,025,746	$4,797,449	92	%

Revenues from our Technology Development segment for the three months ended June 30, 2015 increased to $3.7 million, or 16%, from $3.2 million for the same period in 2014. The growth in technology development revenues was primarily driven by the inclusion of technology development revenues from API from the closing of our merger through June 30, 2015, of $0.4 million.

Our products and licensing segment includes revenues from sales of test & measurement systems, primarily representing sales of our ODiSI, Optical Vector Analyzer, and Optical Backscatter Reflectometer platforms in addition to the sale of Terahertz sensing products following our merger with API. Revenues from test & measurement system sales increased 43% to $2.9 million for the three months ended June 30, 2015 compared to $2.0 million for the same period in 2014. The increase in revenue was primarily driven by increased sales of our ODiSI platform of products for the use of optical fiber in the measurement of strain or temperature. Our products and licensing revenues also include the sale of optical components and sub-assemblies, representing principally the high speed optical

receiver and custom component and subassembly operations of API. Revenues related to these activities were $3.4 million for the period from the closing of our merger with API on May 8, 2015 through June 30, 2015. We had no corresponding revenues from these activities for periods prior to the merger. Total

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revenues from our Products and Licensing segment for the three months ended June 30, 2015 increased 213% to $6.3 million from $2.0 million for the same period in 2014.

Cost of Revenues and Gross Profit

	Three Months Ended June 30,				
	2014	2015	$ Difference	% Difference	
Cost of revenues:					
Technology development costs	$2,388,801	$2,576,145	$187,344	8	%
Products and licensing costs	851,490	3,252,627	2,401,137	282	%
Total cost of revenues	3,240,291	5,828,772	2,588,481	80	%
Gross Profit	$1,988,006	$4,196,974	$2,208,968	111	%

The cost of our Technology Development segment revenues for the three months ended June 30, 2015 increased 8%, or $0.2 million compared to the second quarter of 2014. Technology development cost of revenues for the quarter ended June 30, 2015 included $0.2 million in costs associated with development activities of API, accounting for substantially all of the increase.

The costs of revenues associated with the sale of test & measurement systems within our Products and Licensing segment increased by $0.3 million from $0.9 million for the three months ended June 30, 2014 to $1.2 million for the same period in 2015, due to higher sales of ODiSI systems and commensurate with the rate of revenue growth. Costs of revenues associated with the sale of optical components and sub-assemblies from the closing of our merger with API through June 30, 2015, were $2.1 million. We had no corresponding costs of revenues for optical components and sub-assemblies for periods prior to the merger.

Our overall gross margin for the three months ended June 30, 2015 was 42% compared to 38% for the three months ended June 30, 2014. As product sales typically provide a higher gross margin than does the technology development segment, the overall growth in product and licensing revenues, both organic and as a result of our merger with API, resulted in greater concentration of product sales in our overall revenue mix and therefore, higher overall gross margins for the quarter compared to the prior year.

Operating Expense

	Three Months Ended June 30,				
	2014	2015	$ Difference	% Difference	
Operating expense:					
Selling, general and administrative	$2,466,626	$5,518,656	$3,052,030	124	%
Research, development and engineering	484,509	801,221	316,712	65	%
Total operating expense	$2,951,135	$6,319,877	$3,368,742	114	%

Our selling, general and administrative expense increased to $5.5 million for the three months ended June 30, 2015, compared to $2.5 million for the same period in 2014. Costs incurred during the three months ended June 30, 2015 associated with the completion of our merger with API were $1.7 million. Selling, general and administrative expenses for API activities, including the incremental amortization expense associated with the step-up in assets bases as a result of purchase accounting were $1.0 million for the period following the closing of the merger through June 30, 2015.

Research, development and engineering expense increased $0.3 million, or 65%, for the three months ended June 30, 2015 compared to the second quarter of 2014. The increase is attributable to the research and development expenses of API for the period from the closing of our merger through June 30, 2015.

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Interest Expense

Interest expense for the three months ended June 30, 2015 was $49,966 compared to interest expense of $27,302 during the same period in 2014. In connection with our merger with API in May 2015, we entered into a new term loan in the original principal amount of $6.0 million. During the second quarter of 2014, our average outstanding loan balance was $1.9 million. The higher average loan balance during the second quarter of 2015 accounted for the increase in interest expense.

Net Loss from Continuing Operations

As a result of our revenues of $10.0 million offset by cost of revenues of $5.8 million and operating expenses of $6.3 million during the three months ended June 30, 2015, we incurred a loss from continuing operations before income taxes of $2.2 million, compared to a loss from continuing operations before income taxes of $1.0 million for the three months ended June 30, 2014. The loss from continuing operations for the three months ended June 30, 2015 included non-recurring charges of $1.7 million related to the costs of our merger with API. Additionally, our loss from continuing operations was adversely impacted by $0.3 million in incremental depreciation and amortization expense associated with the step-up in bases of the tangible and intangible assets of API recorded in connection with our merger.

We recorded an income tax benefit related to our net operating losses of $0.4 million for the three months ended June 30, 2014. Our net loss from continuing operations was $2.2 million for the three months ended June 30, 2015 and after recognition of the tax benefit, our net loss from continuing operations was $0.6 million for the three months ended June 30, 2014.

Net Loss from Discontinued Operations

For the three months ended June 30, 2014, we recognized a loss from discontinued operations of $0.3 million, which resulted from the intraperiod allocation of income taxes in the second quarter of 2014 in connection with the sale of our medical shape sensing business that occurred during the first quarter of 2014.

Six Months Ended June 30, 2014 Compared to Six Months Ended June 30, 2015

Revenues

	Six Months Ended June 30,				
	2014	2015	$ Difference	% Difference	
Revenues:					
Technology development revenues	$5,894,887	$6,603,786	$708,899	12	%
Products and licensing revenues	3,805,291	8,761,062	4,955,771	130	%
Total revenues	$9,700,178	$15,364,848	$5,664,670	58	%

Technology development revenues increased $0.7 million, or 12%, for the six months ended June 30, 2015 to $6.6 million compared to $5.9 million for the six months ended June 30, 2014. Technology development revenues from API were $0.4 million for the period from the closing of our merger on May 8, 2015 through June 30, 2015. Additionally, funded research within our optical systems group increased $0.2 million for the first six months of 2015 compared to the first six months of 2014.

Product and licensing revenues for test & measurement systems increased 40%, to $5.3 million for the six months ended June 30, 2015 compared to $3.8 million for the six months ended June 30, 2014. This increase resulted primarily from increased sales of our ODiSI and our Optical Backscatter Reflectometer products. Test & measurement system revenues from API during the period from the closing of the merger through June 30, 2015 were $0.2 million. Product and licensing revenues related to optical components and sub-assemblies were $3.4 million for the period from the closing of our merger with API through June 30, 2015. These revenues relate to the HSOR and the Optosolutions business lines of API, and therefore there we had no corresponding revenues from the sale of optical components and sub-assemblies for periods prior to the merger.

Cost of Revenues and Gross Profit

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	Six Months Ended June 30,			
	2014	2015	$ Difference	% Difference
Cost of revenues:				
Technology development costs	$4,413,956	$4,659,769	$245,813	6 %
Products and licensing costs	1,746,130	4,219,317	2,473,187	142 %
Total cost of revenues	6,160,086	8,879,086	2,719,000	44 %
Gross profit	$3,540,092	$6,485,762	$2,945,670	83 %

Costs of technology development revenues increased 6%, or $0.2 million, for the six months ended June 30, 2015 compared to the six months ended June 30, 2014. This increase was primarily driven by $0.2 million of costs incurred with respect to technology development activities within API from the closing of our merger through June 30, 2015.

Costs of product and licensing revenues associated with test & measurement systems increased $0.4 million, or 23%, for the first six months of 2015 compared to the first six months of 2014. The increased cost was driven principally by higher volume of sales of our ODiSI and OBR products. Costs grew at a slower rate than revenues for the corresponding period due to the inclusion of higher non-recurring engineering expenses related to the design and production of our lasers and a reserve for obsolete inventory of $0.1 million in cost of revenues for the six months ended June 30, 2014. Cost of revenues for optical components and sub-assemblies was $2.1 million for the period from the closing of our merger with API through June 30, 2015. We had no corresponding activities for periods prior to the merger.

Gross profit improved to $6.5 million, or 42% of total revenues, for the six months ended June 30, 2015, compared to $3.5 million, or 36% of total revenues, for the six months ended June 30, 2014. As revenues from our product and licensing segment typically provide a higher gross margin than do the revenues from our technology development segment, the shift in our mix of revenues to a greater concentration of product and licensing revenues results in an overall gross margin improvement.

Operating Expense

	Six Months Ended June 30,			
	2014	2015	$ Difference	% Difference
Operating expense:				
Selling, general and administrative	$5,221,704	$10,087,609	$4,865,905	93 %
Research, development and engineering	1,233,663	1,136,111	(97,552)	(8)%
Total operating expense	$6,455,367	$11,223,720	$4,768,353	74 %

Selling, general and administrative expenses were $10.1 million for the six months ended June 30, 2015 compared to $5.2 million for the first six months of 2014. For the six months ended June 30, 2015, these costs included $3.5 million of costs associated with completing our merger with API. Selling, general and administrative costs of API, including the additional expenses associated with the amortization of the step-up in bases of the acquired assets of API, were $1.0 million for the period from the completion of the merger through June 30, 2015.

Research, development and engineering expense for the six months ended June 30, 2015 declined $0.1 million compared to the six months ended June 30, 2014. This decline was the result of a $0.5 million reduction in research, development and engineering expenses incurred by the legacy Luna business, primarily resulting from the expenses incurred with respect to our medical shape sensing business prior to its sale in the first quarter of 2014. This reduction was partially offset by the addition of the research, development and engineering costs of API in the amount of $0.4 million for the period from the closing of the merger through June 30, 2015.

Other Income

Other income for the six months ended June 30, 2014 included $106,000 related to rental income for the partial sublease of our Roanoke facility. This sublease expired on April 30, 2014. We had no significant non-operating revenue for the six months ended June 30, 2015.

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Interest Expense

Interest expense for the six months ended June 30, 2015 was $59,103 compared to interest expense of $59,667 for the six months ended June 30, 2014. In connection with our merger with API in May 2015, we entered into a new term loan in the original principal amount of $6.0 million. During the first six months of 2014, our average outstanding loan balance was $1.7 million, and with the new loan executed in May of 2015, our average loan balance for the first six months of 2015 was $2.2 million.

Net Loss from Continuing Operations

We incurred a loss from continuing operations before income taxes of $4.8 million for the six months ended June 30, 2015, compared to a loss from continuing operations before income taxes of $2.9 million for the six months ended June 30, 2014. The loss from continuing operations for the six months ended June 30, 2015 included non-recurring charges of $3.5 million related to the costs of our merger with API. Additionally, our loss from continuing operations was adversely impacted by the effect of $0.3 million in incremental depreciation and amortization expense associated with the step-up in bases of the tangible and intangible assets of API recorded in connection with our merger.

We recorded an income tax benefit related to our net operating losses of $1.1 million for the six months ended June 30, 2014. Our net loss from continuing operations was $4.8 million for the six months ended June 30, 2015 and after recognition of the tax benefit, our net loss from continuing operations was $1.7 million for the six months ended June 30, 2014.

Net Income from Discontinued Operations

For the six months ended June 30, 2014, we recognized net income from discontinued operations of $9.3 million resulting from the sale of our medical shape sensing business that occurred during the first quarter of 2014.

Liquidity and Capital Resources

At June 30, 2015, our total cash and cash equivalents were $7.5 million.

In connection with the completion of our merger with API, we entered into a term debt arrangement with Silicon Valley Bank ("SVB") in the original 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%, currently 5.25%.

We believe that our cash balance as of June 30, 2015 will provide adequate liquidity for us to meet our working capital needs over the next twelve months. Additionally, we believe that should we have the need for increased capital spending to support our planned growth, we will be able to fund such growth through either third-party financing on competitive market terms or through our available cash.

Discussion of Cash Flows

Recent Activity

	Six Months Ended June 30,		
	2014	2015	$ Difference
Net cash used in operating activities	$(3,116,347)	$(6,855,862)	$(3,739,515)
Net cash provided by investing activities	10,654,014	200,764	(10,453,250)
Net cash (used in)/provided by financing activities	(641,235)	50,642	691,877
Net change in cash	$6,896,432	$(6,604,456)	$(13,500,888)

During the first six months of 2015, operations used $6.9 million of cash, as compared to the same period in 2014 in which operations used $3.1 million of cash. During the first six months of 2015, our net loss of $4.8 million was primarily the

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result of expenses recorded in relation to the merger with API of $3.5 million, charges for depreciation and amortization of $0.8 million and share-based compensation of $0.6 million. Additionally, changes in working capital resulted in a net cash outflow of $2.6 million, principally driven by an increase in inventory purchases of $1.3 million in anticipation of future product revenue growth, a reduction in accounts payable and accrued liabilities of $1.3 million and an increase of $0.3 million in accounts receivable due to the timing differences between recognizing a sale and collecting the cash payment for the sale.

During the first six months of 2014, our net income of $7.6 million was primarily the result of the after-tax gain on the sale of our medical shape sensing business of $9.4 million and a tax benefit of $1.1 million. Without the effect of that gain and tax benefit, our pre-tax loss from continuing operations was $2.9 million. The pre-tax loss from continuing operations included charges for depreciation and amortization of $0.3 million and share-based compensation of $0.5 million, both of which are non-cash items that do not impact cash flow for the period. Additionally, changes in working capital resulted in a net cash outflow of $1.0 million

Our cash flows from investing activities is composed of purchases of equipment and capitalized costs associated with the prosecution of patents. In the first six months of 2014, cash flows provided by investing activities also included the net cash proceeds from the sale of our medical shape sensing business. In the first six months of 2015, cash flows provided by investing activities also included $0.4 million of cash on hand at API at the time of our merger.

Net cash provided by financing activities during the six months ended June 30, 2015 included the repayment of the long term debt we assumed in connection with our merger with API, the refinancing of that debt with a new $6.0 million term loan, the scheduled repayments of principal for our debt and lease obligations, and cash we received from the exercise of employee stock options. In the aggregate, these activities resulted in net cash inflows of $0.1 million for the first half of 2015. Net cash used in financing activities during the six months ended June 30, 2014 included the scheduled repayments of principal for our debt and lease obligations, which in the aggregate resulted in net cash outflows of $0.8 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).

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. We do not currently use derivative instruments to alter the interest rate characteristics of our debt. For the principal amount of $5.8 million outstanding under the term loan as of June 30, 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 $58,000.

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 June 30, 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

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foreign currency. As such, we are not directly exposed to significant currency gains or losses resulting from fluctuations in foreign exchange rates.

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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 (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 June 30, 2015, our disclosure controls and procedures were effective at the reasonable assurance level.

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 June 30, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In June 2015, we received a letter of final determination from the Defense Contract Management Agency ("DCMA") regarding the allowability of certain costs we included in our billings under cost-plus type research contracts during 2007. In conjunction with the DCMA's determination of those costs as expressly unallowable under the provisions of the Federal Acquisition Regulations, the DCMA assessed penalties and interest to us totaling $1.1 million. In July 2015, we filed an appeal of the assessed penalties and interest with the Armed Services Board of Contract Appeals, and that appeal is currently pending.

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 OUR 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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We depend upon outside contract manufacturers for a portion of the manufacturing process for some of our products. Our operations and revenue related to these products could be adversely affected if we encounter problems with these contract manufacturers.

Many of our products are manufactured internally. However we also rely upon contract manufacturers to produce the finished portion of some of our optoelectronic components and certain lasers. Our reliance on contract manufacturers for these products makes us vulnerable to possible capacity constraints and reduced control over delivery schedules, manufacturing yields, manufacturing quality control and costs. If the contract manufacturer for our products were unable or unwilling to manufacture our products in required volumes and at high quality levels or to continue our existing supply arrangement, we would have to identify, qualify and select an acceptable alternative contract manufacturer or move these manufacturing operations to internal manufacturing facilities. An alternative contract manufacturer may not be available to us when needed or may not be in a position to satisfy our quality or production requirements on commercially reasonable terms, including price. Any significant interruption in manufacturing our products would require us to reduce the supply of products to our 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.

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, 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 June 2015, we received a determination from the Defense Contract Management Agency ("DCMA") of expressly unallowable costs included in our claimed costs for the 2007 contract year. As a result of that determination, DCMA assessed us penalties, interest and over billings of $1.1 million. We have appealed that assessment, and our appeal is currently pending. Depending on the outcome of this appeal, we could be required to make payments that have a material adverse effect on our financial position.

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.

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 ("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 33% in for the six months ended June 30, 2015.

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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 June 30, 2015, we had approximately 250 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 61% and 43% of our consolidated total revenues for the six months ended June 30, 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.

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,

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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.

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.

Our business is subject to the cyclical nature of the markets in which we compete and any future downturn may reduce demand for our products and revenue.

Many factors beyond our control affect our 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 have a direct impact on some of our customers and the demand for our products. We cannot be sure that our business will not be adversely affected as a result of an industry or general economic downturn.

Our 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 our 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 we compete could significantly reduce the demand for our products and therefore may result in a significant reduction in revenue or increase the volatility of the price of our common stock. Our revenue and results of operations may be adversely affected in the future due to changes in demand from customers or cyclical changes in the markets utilizing our 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, which would have a negative impact on our 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 our products is dependent on our ability to meet changing requirements, and any decrease in acceptance could adversely affect our revenue.

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

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

Our customers generally establish demanding specifications for quality, performance and reliability that our products must meet. However, our products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. Our products are also subject to rough environments as they are integrated into our customer products for use by the end customers. If defects and failures occur in our 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 reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in our ability to fill product orders as a result of quality control issues may negatively impact our relationship with our 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 our products obsolete, which would cause our revenue and results of operations to suffer.

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

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

The markets for many of our 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 our 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 products competitively and manufacture and deliver products in sufficient volumes and on time; and
- differentiate our product offerings from those of our competitors.

Some of our products are used by our customers to develop, test and manufacture their products. We therefore must anticipate industry trends and develop products in advance of the commercialization of our 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 our customers' needs and future activities, we may invest heavily in research and development of products that do not lead to significant revenues.

Our inability to find new customers or retain existing customers could harm our business.

Our business is reliant on our ability to find new customers and retain existing customers. In particular, customers normally purchase the legacy API products and incorporate them into products that they, in turn, sell in their own markets on an ongoing basis. As a result, the historical sales or these products have been dependent upon the success of our 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 markets, the quality and reliability of our products are a major concern for our customers, not only upon the initial manufacture of the product, but for the life of the product. Many of our products are used in remote locations

for higher value assembly, making servicing of our products unfeasible. Any failure of the quality or reliability of our products could harm our business.

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

Most of our customers do not purchase our HSOR and Optosolutions products prior to qualification of the products and satisfactory completion of factory audits and vendor evaluation. Our existing products, as well as each new product, must pass through varying levels of qualification with our customers. In addition, because of the rapid technological changes in some markets, a customer may cancel or modify a design project before we begin large-scale manufacturing and receiving 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 our 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 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 our customers fail to qualify or delay qualifications of any products sold by our customers that contain our products, our business could be harmed. The qualification and field testing of our customers' systems by end user customers is long and unpredictable. This process is not under our control or that of our customers and, as a result, the timing of our sales may be unpredictable. Any unanticipated delay in qualification of one of our customers' products could result in the delay or cancellation of orders from our customers for products included in their equipment, which could harm our results of operations.

Customer demand for our 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.

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, inventory levels, component procurement commitments, personnel needs and other resource requirements, based on our estimates of customer requirements. The short-term nature of commitments by many of our 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 our resources, cause our manufacturing to be negatively impacted by materials shortages, necessitate higher or more restrictive procurement commitments, increase our manufacturing yield loss and scrapping of excess materials, and reduce our gross margin. We may not have sufficient capacity at any given time to meet the volume demands of our customers, or one or more of our suppliers may not have sufficient capacity at any given time to meet our volume demands. Conversely, a downturn in the markets in which our customers compete can cause, and in the past have caused, API's legacy customers to significantly reduce or delay the amount of products ordered or to cancel existing orders, leading to lower utilization of our facilities. Because many of our costs and operating expenses are relatively fixed, reduction in customer demand due to market downturns or other reasons would have a negative effect on our gross margin, operating income and cash flow.

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

Our sales are made primarily pursuant to standard purchase orders for delivery of products. However, by industry practice, some 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 us, 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 customer demand are common in the legacy API business. Such fluctuations, as well as quality control problems experienced in manufacturing operations, may cause delays and disruptions in our manufacturing process and overall operations and reduce output capacity. As a result, product shipments could be delayed beyond the shipment schedules requested by our customers or could be canceled, 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 experienced such delays, disruptions and cancellations.

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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 $1.7 million and $4.8 million for the six months ended June 30, 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 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 minimum liquidity ratio, 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.

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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.

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

Decreases in average selling prices of our products may increase operating losses and net losses, particularly if we are not able to reduce 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 recent years, API observed a significant decline of average selling prices, primarily in the telecommunications market. We anticipate that average selling prices will continue to decrease in the future in response to product introductions by competitors or by us, or in response to other factors, including price pressures from significant customers. In order to sustain profitable operations, we must, therefore, reduce the cost of our 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.

Our cost reduction efforts may not keep pace with competitive pricing pressures. To remain competitive, we must continually reduce the cost of manufacturing our products through design and engineering changes. We may not be successful in redesigning our products or delivering our 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 our products to remain

competitive or positively contribute to operating results.

Shifts in product mix may result in declines in gross profit.

Our gross profit margins vary among our product platforms, and are generally highest on our test & measurement instruments. Our overall gross profit may fluctuate from period to period as a result of a variety of factors including shifts in

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product mix, the introduction of new products, and decreases in average selling prices for older products. If our customers decide to buy more of our products with low gross profit margins or fewer of our products with high gross profit margins, our total gross profits could be harmed.

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.

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

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

On an ongoing basis, we evaluate our 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 our business, we may be forced to sell one or more of our product lines or technology developments.

We cannot guarantee that we have 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 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, our 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.

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

Our products are complex and undergo quality testing as well as formal qualification, both by our customers and by us. However, defects may occur from time to time. Our customers' testing procedures may be limited to evaluating our 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, our 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

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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, many of our products are embedded in, or deployed in conjunction with, our 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 our engineering personnel from internal product development efforts and cause significant customer relations problems or loss of customers, all of which would harm our business.

Furthermore, many of our products may provide critical performance attributes to our customers' products that will be sold to end users who could potentially bring product liability suits in which we 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 our 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.

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.

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.

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

The photonics industry, as well as the semiconductor industry, are 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 we maintain certain environmental permits. While we believe that we have obtained all necessary environmental permits required to conduct our manufacturing processes, if we are found to be in violation of these laws, we could be subject to governmental fines and liability for damages resulting from such violations.

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.

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 (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 (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 ("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.

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.

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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;
- 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

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- 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.

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

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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.

If we fail to obtain the right to use the intellectual property rights of others which are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.

In the past, we have licensed certain technologies for use in our 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 our products. We cannot assure you that third-party licenses will be available on commercially reasonable terms, if at all. Our competitors may be able to obtain licenses, or cross-license their technology, on better terms than we can, which could put us at a competitive disadvantage. Also, we often enter into confidentiality agreements with such third parties in which we agree to protect and maintain their proprietary and confidential information, including at times requiring our employees to enter into agreements protecting such information. There can be no assurance that the confidentiality

agreements will not be breached by any of our employees or that such third parties will not make claims that their proprietary information has been disclosed.

RISKS RELATING TO THE MERGER WITH API

If we are unable to successfully integrate API's business it could have an adverse effect on our future results and the market price of our common stock.

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The success of our recently completed merger with API will depend, in large part, on sales of the combined company's products and on our ability 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, we 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 our 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 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 our ability to achieve the anticipated benefits of the merger could be adversely affected, or could reduce our future earnings or otherwise adversely affect our business and financial results and, as a result, adversely affect the market price of our common stock.

Customer uncertainties related to our operations after the merger could adversely affect our businesses, revenues and gross margins.

If there is uncertainty among our customers, including customers of API, 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 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 future market price for shares of our common stock 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 Luna following the completion of the merger may affect the results of operations of the combined company differently than they affected the results of operations of each of Luna and API as separate companies. Additionally, our future results of operations may be affected by additional or different factors than those that historically affected 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.

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 ("Carilion") and Dr. Kent Murphy. This registration statement has been declared effective by the Securities and

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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;
- 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;

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- 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.

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

(a) Unregistered Sales of Equity Securities during the Three Months Ended June 30, 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 June 30, 2015, the Series A Preferred Stock issued to Carilion has accrued $918,935 in dividends. The accrued dividend as of June 30, 2015 will be paid by the issuance of 432,383 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.

Luna Innovations Incorporated

Date: August 14, 2015

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
10.1	Amended and Restated Non-Employee Director Compensation Policy, dated June 30, 2015.
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 June 30, 2015, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets at December 31, 2014 and June 30, 2015, (ii) Consolidated Statements of Operations for the three and six months ended June 30, 2014 and 2015, (iii) Consolidated Statements of Cash Flows for the six months ended June 30, 2014 and 2015 and (iv) Notes to Unaudited Consolidated Financial Statements.

*	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.