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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2010

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)**

One Riverside Circle, Suite 400
Roanoke, VA 24016
(Address of Principal Executive Offices)

(540) 769-8400
(Registrant's Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

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

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

☐ Yes ☐ No

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

☐ Yes ☒ No

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

☒ Yes ☐ No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: As of November 8, 2010,

there were 13,299,590 shares of the registrant’s common stock outstanding.

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 Disclosure About Market Risk" under Items 2 and 3, respectively, of Part I of this report, and the sections entitled "Legal Proceedings," "Risk Factors," and "Unregistered Sales of Equity Securities and Use of Proceeds" under Items 1, 1A and 2, respectively, 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," "predicts," "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 management transition, 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.

You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Quarterly Report on Form 10-Q. You should carefully review the risk factors described in other documents that we file from time to time with the U.S. Securities and Exchange Commission, or SEC. Except as required by applicable law, including the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements, whether as a result of any new information, future events or otherwise, other than through the filing of periodic reports in accordance with the Securities Exchange Act of 1934, as amended.

LUNA INNOVATIONS INCORPORATED
QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTER ENDED SEPTEMBER 30, 2010

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Luna Innovations Incorporated
Condensed Consolidated Balance Sheets

	September 30, 2010 (unaudited)	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 7,152,228	$ 5,228,802
Accounts receivable, net	6,578,187	7,203,203
Inventory, net	2,984,848	2,890,364
Prepaid expenses	508,138	560,964
Other current assets	45,524	729,532
Total current assets	17,268,925	16,612,865
Property and equipment, net	3,428,076	4,129,015
Intangible assets, net	571,444	580,785
Other assets	322,002	435,259
Total assets	$ 21,590,447	$ 21,757,924
Liabilities and stockholders' equity (deficit)		
Liabilities not subject to compromise:		
Current liabilities:		
Revolving line of credit	2,500,000	—
Current portion of long term-debt obligation	1,164,005	—
Accounts payable	1,279,763	1,142,267
Accrued liabilities	3,234,115	3,386,849
Deferred credits	1,343,348	1,027,016
Total current liabilities	9,521,231	5,556,132
Long-term debt obligation	2,993,296	—
Liabilities subject to compromise	—	19,062,000
Total liabilities	12,514,527	24,618,132
Commitments and contingencies		
Stockholders' equity (deficit):		
Preferred stock, par value $0.001, 1,321,514 shares authorized, issued and outstanding at September 30, 2010	1,322	—
Common stock, par value $0.001, 100,000,000 shares authorized, 13,280,696 and 11,351,967 shares issued and outstanding at September 30, 2010 and December 31, 2009, respectively	13,338	11,352
Additional paid-in capital	55,666,838	41,228,698
Accumulated deficit	(46,605,578)	(44,100,258)
Total stockholders' equity (deficit)	9,075,920	(2,860,208)
Total liabilities and stockholders' equity (deficit)	$ 21,590,447	$ 21,757,924

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

Luna Innovations Incorporated
Condensed Consolidated Statements of Operations

	Three Months Ended September 30,		Nine Months Ended September 30 ,	
	2010	2009	2010	2009
	(unaudited)		(unaudited)	
Revenues:				
Technology development revenues	$ 5,027,024	$ 6,493,741	$16,929,621	$ 19,795,638
Product and license revenues	3,558,118	2,381,184	8,539,953	6,234,621
Total revenues	8,585,142	8,874,925	25,469,574	26,030,259
Cost of revenues:				
Technology development costs	3,534,089	4,136,935	11,559,351	13,189,007
Product and license costs	1,613,499	1,231,289	4,332,600	3,275,076
Total cost of revenues	5,147,588	5,368,224	15,891,951	16,464,083
Gross Profit	3,437,554	3,506,701	9,577,623	9,566,176
Operating expense:				
Selling, general and administrative	3,383,121	3,892,238	10,044,549	13,033,818
Research, development, and engineering	307,777	660,836	1,249,385	2,343,176
Litigation reserve	—	—	—	36,303,643
Impairment of intangible assets	—	—	—	1,310,598
Reorganization expense	53,597	872,644	161,801	872,644
Total operating expense	3,744,495	5,425,718	11,455,735	53,863,879
Operating loss	(306,941)	(1,919,017)	(1,878,112)	(44,297,703)
Other income (expense):				
Other income (expense)	10,000	—	(5,477)	(18,167)
Interest expense	(124,756)	(124,208)	(352,282)	(422,702)
Total other expense, net	(114,756)	(124,208)	(357,759)	(440,869)
Loss before income taxes	(421,697)	(2,043,225)	(2,235,871)	(44,738,572)
Income tax expense	1,817	—	1,817	600,000
Net loss	(423,514)	(2,043,225)	(2,237,688)	(45,338,572)
Preferred stock dividend	93,000	—	267,633	—
Net loss attributable to common stockholders	$ (516,514)	$ (2,043,225)	$ (2,505,321)	$(45,338,572)
Net loss per share:				
Basic and Diluted	$ (0.04)	$ (0.18)	$ (0.19)	$ (4.05)
Weighted average shares:				
Basic and Diluted	13,188,913	11,247,749	12,890,752	11,205,575

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

Luna Innovations Incorporated
Condensed Consolidated Statements of Cash Flows

	Nine months ended September 30,	
	2010	2009
	(unaudited)	
Cash flows used in operating activities		
Net loss	$(2,237,688)	$(45,338,572)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation and amortization	953,630	1,504,211
Impairment of intangible assets	—	1,310,598
Share-based compensation	2,616,024	2,378,968
Deferred tax expense	—	600,000
Reorganization expense in excess of cash payments	—	88,210
Reorganization accrual	—	146,964
Change in assets and liabilities:		
Accounts receivable	625,016	(263,620)
Inventory	(140,220)	(1,181,901)
Other current assets	736,834	—
Other assets	71,029	(34,581)
Accounts payable and accrued expenses	(3,267,285)	(102,956)
Litigation reserve	—	36,303,643
Deferred credits	316,332	(102,391)
Net cash used in operating activities	(326,328)	(4,691,427)
Cash flows used in investing activities		
Acquisition of property and equipment	(50,540)	(49,295)
Intangible property costs	(152,404)	(152,011)
Net cash used in investing activities	(202,944)	(201,306)
Cash flows provided by (used in) financing activities		
Payments on capital lease obligations	(4,000)	(7,927)
Proceeds from debt obligations	2,500,000	—
Payment of debt obligations	(842,699)	(5,000,000)
Proceeds from the exercise of options and warrants	799,397	35,556
Net cash provided by (used in) financing activities	2,452,698	(4,972,371)
Net change in cash	1,923,426	(9,865,104)
Cash and cash equivalents—beginning of period	5,228,802	15,518,960
Cash and cash equivalents—end of period	$ 7,152,228	$ 5,653,856
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 266,775	$ 177,973
Common stock issued in litigation settlement (1,247,330 shares)	$ 4,565,227	—
Installment note issued in litigation settlement	$ 5,000,000	—
Preferred stock issued in exchange of notes (1,321,514 shares)	$ 4,836,742	—
Warrants issued in exchange of notes payable (356,000 warrants)	$ 1,261,879	—
Common stock issued in settlement of other claims (25,000 shares)	$ 91,500	—
Dividend on preferred stock, 57,046 shares of common stock issuable	$ 267,633	—

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

Luna Innovations Incorporated

Notes to Unaudited Condensed Consolidated Financial Statements

1. Basis of Presentation and Significant Accounting Policies

Nature of Operations

Luna Innovations Incorporated ("Luna Innovations") was incorporated in the Commonwealth of Virginia in 1990 and subsequently reincorporated in the State of Delaware in April 2003. We are engaged in the research, development and commercialization of innovative technologies in the areas of test & measurement, sensing, and instrumentation products, secure computing and communications and health care. We are organized into two main groups, which work closely together to turn ideas into products: our Technology Development Group, and our Product and License Group. We have a business model that is designed to accelerate the process of bringing new and innovative technologies to market. We identify technology that can fulfill identified market needs. We then take these solutions from the applied research stage through commercialization.

Unaudited Interim Financial Information

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP") and with the instructions to Form 10-Q 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 US GAAP for audited 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 September 30, 2010 and results of operations and cash flows for the three and nine months ended September 30, 2010 and 2009. The results of operations for the nine months ended September 30, 2010 are not necessarily indicative of the results that may be expected for the year ending December 31, 2010.

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, 2009, included in the Company's Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 26, 2010. As used herein, the terms "Luna", "Company", "we", "our" and "us" mean Luna Innovations Incorporated and its consolidated subsidiaries.

Consolidation Policy

Our consolidated financial statements are prepared in accordance with US GAAP and include the accounts of the Company, our wholly owned subsidiaries and other entities in which we have a controlling financial interest. We eliminate from our financial results all significant inter-company transactions. We do not have any investments in entities we believe are variable interest entities for which we are the primary beneficiary.

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 Company's financial instruments include cash and cash equivalents, accounts receivable, accounts payable, and debt. As of September 30, 2010 and December 31, 2009, the carrying value of all financial instruments approximated their fair value.

Certain nonfinancial assets and liabilities are measured at fair value on a nonrecurring basis in accordance with applicable 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 goodwill, other 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.

Emergence from Chapter 11 Reorganization

On July 17, 2009, Luna Innovations, along with Luna Technologies, Inc., which together included all of the operations of the consolidated Company, filed a voluntary petition for relief in order to reorganize under Chapter 11 of the United States Bankruptcy Code, including a proposed plan of reorganization, in the United States Bankruptcy Court for the Western District of Virginia (the "Bankruptcy Court"). During the period from July 17, 2009 through January 12, 2010, the Company continued to operate its business in the ordinary course as a Debtor-in-Possession. On January 12, 2010, the Bankruptcy Court approved our plan of reorganization, and the Company successfully emerged from Chapter 11 reorganization.

Upon our emergence and in connection with our litigation settlement, we issued approximately 1.2 million shares of common stock to Hansen Medical, Inc., as described below. Other outstanding shares of common stock were not directly affected by our plan of reorganization. Because the shareholders immediately prior to our emergence from Chapter 11 continue to own more than 50% of the total outstanding common stock immediately following our emergence from Chapter 11 reorganization, we did not adopt the fresh-start reporting principles of Accounting Standards Codification ("ASC") 852-10-45 Financial Reporting during Reorganization.

Settlement of Hansen Litigation

In June 2007, Hansen Medical, Inc. ("Hansen"), a company for which we had conducted certain research and performed certain services, filed a lawsuit against us for using allegedly misappropriated trade secrets from Hansen in connection with our work with Intuitive Surgical, Inc. ("Intuitive"), or otherwise. On April 21, 2009, a jury found in favor of Hansen and awarded a verdict for $36.3 million against us. As a result of this jury verdict, we filed for Chapter 11 reorganization in July 2009, as described above under "Emergence from Chapter 11 Reorganization."

On December 11, 2009, we and our wholly owned subsidiary Luna Technologies, Inc., entered into a settlement agreement with Hansen to settle all claims arising out of the litigation. As a result of the settlement our accrual of $36.3 million recorded during the quarter ended March 31, 2009 was adjusted to $9.7 million at December 31, 2009. On January 12, 2010, as part of our reorganization plan, we entered into a series of agreements with Hansen and Intuitive that were contemplated by the settlement agreement. The following is a summary of the material terms of these agreements.

License Agreement with Hansen (the "Hansen License")

Under the Hansen License, we granted Hansen (i) a co-exclusive (with Intuitive), royalty-free, fully paid, perpetual and irrevocable license to our fiber optic shape sensing/localization technology within the medical robotics field. The license can only be sublicensed by Hansen in connection with Hansen products, except that Hansen can grant full sublicenses to third parties for single degree of freedom robotic medical devices; (ii) an exclusive (and fully sublicenseable) royalty-free, fully paid, perpetual and irrevocable license to our fiber optic shape sensing/localization technology for non-robotic medical devices within the orthopedics, vascular, and endoluminal fields; and (iii) a co-exclusive (with us) royalty-free, fully paid, perpetual and irrevocable license to our fiber optic shape sensing/localization technology for non-robotic medical devices in other medical fields (including colonoscopies but not including devices described in clause (ii) above). After five years, the exclusive license in the non-robotic endoluminal field may be converted to a co-exclusive (with us) license in certain circumstances in connection with certain supply provisions applicable to that field under the Development and Supply Agreement described below.

The Hansen License provides that Hansen and Intuitive have the right to enforce the intellectual property licensed by us within the medical robotics field. Hansen has the sole right to enforce such intellectual property for non-robotic devices in the orthopedics field, the vascular field and the endoluminal field. We have the right to enforce such intellectual property in other non-robotic medical fields.

In addition, Hansen granted us a nonexclusive, sublicenseable, royalty-free, fully paid, perpetual and irrevocable license to certain Hansen fiber optic shape sensing/localization technology in all fields outside of the medical robotics field and the orthopedics, vascular and endoluminal fields. Furthermore, we confirmed Hansen's ownership of certain intellectual property developed in whole or in part by us under a prior agreement between us and Hansen.

Development and Supply Agreement with Hansen

In connection with the settlement agreement, we also entered into a development and supply agreement with Hansen. Under the terms of this agreement, we will perform product development services with respect to fiber optic shape sensing at Hansen's request and provide Luna shape sensing products to Hansen. Revenues earned for product development will be determined in a manner consistent with our contract development services in our Technology Development business segment and will be payable monthly to us. Each quarter, to the extent such revenues exceed the installment payment owed by us to Hansen under the Hansen Note described below, then such excess will not be payable in cash and instead will be credited against the outstanding principal balance of the Hansen Note. As of September 30, 2010, this amount was $0.3 million. Revenue is recognized under the development and supply agreement as time and expenses are incurred based upon contractual billing rates. Under the agreement, 30% of the costs incurred under the contract are not billable until specified milestones are met. Additionally, such amounts may be reduced if such milestones are not met within the timetable specified in the agreement. Since the holdback portion is not fixed and determinable as of September 30, 2010, we have deferred such amounts, approximately $140,000, until the milestone is achieved. We expect to achieve this milestone during the fourth quarter of 2010.

Luna Securities Issued to Hansen

In connection with the settlement agreement, on January 12, 2010, we issued 1,247,330 shares of common stock to Hansen, representing 9.9% of our common stock then outstanding. In addition, we issued to Hansen a warrant entitling Hansen to purchase, until January 12, 2013, a number of shares of our common stock as necessary for Hansen to maintain a 9.9% ownership interest in our common stock, at an exercise price of $0.01 per share. On June 22, 2010, Hansen exercised its warrant and acquired 20,628 shares of our common stock based upon our outstanding shares of common stock as of March 31, 2010. On September 29, 2010, Hansen exercised its warrant and acquired an additional 34,137 shares of our common stock based upon our outstanding shares of common stock as of June 30, 2010. For the nine months ended September 30, 2010, our operating expenses included approximately $150,000 associated with this warrant.

Note Payable to Hansen (the "Hansen Note")

In connection with the settlement agreement, we issued a promissory note to Hansen in the principal amount of $5.0 million, payable in 16 quarterly installments beginning in April 2010. The Hansen Note bears interest at a fixed rate of 8.5% and is secured by substantially all of our assets. The Hansen Note is subordinated to our primary bank credit facility. As of September 30, 2010 the Hansen Note had a principal balance of $4.2 million of which $1.2 million is a current liability and $3.0 million is non-current.

Preferred Stock Issued to Carilion Clinic

In January 2010, we entered into a transaction with Carilion Clinic ("Carilion"), in which Carilion agreed to exchange all of its Senior Convertible Promissory Notes in the principal amount of $5.0 million plus all accrued but unpaid interest, totaling $1.2 million, for (i) 1,321,514 shares of our newly designated Series A Convertible Preferred Stock and (ii) an additional warrant to purchase 356,000 shares of our common stock at an exercise price of $2.50 per share. This warrant is exercisable beginning February 1, 2013, and continuing until December 31, 2020. We also agreed to reduce the exercise price of Carilion's prior common stock warrant from $7.98 to $2.50 per share and to extend its expiration date to December 31, 2020. The Series A Convertible Preferred Stock carries a dividend of 6% payable in shares of common stock and maintains a liquidation preference up to $6.2 million. As of September 30, 2010, 57,046 shares of common stock were issuable to Carilion as dividends and have been recorded in the statement of stockholders' equity. Each share of Series A Convertible Preferred Stock may be converted into one share of our common stock at the option of the holder. We recorded the fair value of the Series A Convertible Preferred Stock, determined based upon the conversion value immediately prior to the exchange, the fair value of the new warrant issued, determined using the Black-Scholes valuation model, and the incremental fair value of the prior warrant due to the re-pricing and extension of maturity to stockholders' equity.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that we will continue as a going concern, which contemplates the realization of assets and the liquidation of liabilities in the normal course of business. We have a history of net losses from 2005 through the nine months ended September 30, 2010, attributable to our operations and other charges. We experienced continued negative cash flow from operations in the nine months ended September 30, 2010. We have historically managed our liquidity through cost reduction initiatives, debt financings, and capital markets transactions.

Since the second half of 2008, the increased turmoil in the U.S. and global capital markets and a global slowdown of economic growth created a substantially more difficult business environment. Our ability to access the capital markets is expected to be extremely limited. The deteriorating economic and market conditions may not improve significantly during 2010, may continue past 2010, and could get worse.

Although there can be no guarantees, we believe that our current cash balance in addition to the funds available to us under the Credit Facility described below provide adequate liquidity for us to meet our working capital needs through 2010.

Use of Estimates

The preparation of our consolidated financial statements in accordance with US GAAP requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our consolidated financial statements and accompanying notes. Although these estimates are based on our knowledge of current events and actions we may undertake in the future, actual results may differ from such estimates and assumptions.

Net Loss Per Share

Basic per share data is computed by dividing loss available to common stockholders by the weighted average number of shares outstanding during the period. Diluted per share data is computed by dividing loss available to common stockholders 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 common shares 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 6,616,771 and 4,761,098 common stock equivalents (which include conversion of preferred stock, outstanding warrants and stock options) are not included for the three months and nine months ended September 30, 2010 and 2009, respectively, as they are anti-dilutive to earnings per share.

Stock-Based Compensation

We recognize stock-based compensation expense based upon the fair value of the underlying equity award on the date of the grant. The Company has elected to use the Black-Scholes option pricing model to value any awards granted. We amortize stock-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 lifetime volatility of our common stock. The risk-free interest rate is based on US 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.

The fair value of each option granted is estimated as of the grant date using the Black-Scholes option pricing model with the following assumptions:

	Nine months ended September 30, 2010	Nine months ended September 30, 2009
Risk-free interest rate	2.09 – 3.22%	2.91 – 3.38%
Expected life of options (in years)	7.5	7.5
Expected stock price volatility	117%	83.00 – 113.59%

A summary of the activity for our 2003 Stock Plan and 2006 Equity Incentive Plan is presented below for the periods indicated:

	Options Outstanding				Options Exercisable		
	Number of Shares	Price per Share Range	Weighted Average	Aggregate Intrinsic Value (1)	Number of Shares	Weighted Average	Aggregate Intrinsic Value (1)
Balance, December 31, 2009	4,727,360	$ 0.35 - $8.20	$ 2.43	$3,545,705	2,987,955	$ 1.72	$2,734,841
Granted	563,667	$ 3.45 - 4.43	$ 4.21				
Exercised	(210,104)	$ 0.35 - 2.11	$ 1.49				
Canceled	(24,277)	$ 1.77 - $5.73	$ 4.03				
Balance, March 31, 2010	5,056,646	$ 0.35 - $8.20	$ 2.66	$3,866,520	2,924,567	$ 2.10	$2,980,196
Granted	174,981	$ 2.32 - 2.35	$ 2.32				
Exercised	(261,408)	$ 0.35 - 2.11	$ 1.16				
Canceled	(5,150)	$ 1.70 - 6.00	$ 2.36				
Balance, June 30, 2010	4,965,069	$ 0.35 - $8.20	$ 2.72	$3,328,505	2,951,700	$ 2.30	$2,530,921
Granted	33,450	$ 2.15	$ 2.15				
Exercised	(122,527)	$ 0.35	$ 0.35				
Canceled	(17,683)	$ 0.35 - 6.00	$ 3.27				
Balance, September 30, 2010	4,858,309	$ 0.35 - 8.20	$ 2.78	$2,587,890	2,949,731	$ 2.46	$1,954,608

(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 at the end of each quarter of the Company's Common Stock on the NASDAQ Capital Market.

At September 30, 2010, our approximately 5.0 million outstanding stock options had a weighted average remaining contractual term of 6.8 years, and our approximately 3.0 million outstanding and exercisable stock options had a weighted average remaining contractual term of 5.6 years.

For the three months ended September 30, 2010 and 2009, we recognized $853,009 and $799,462 in share-based payment expense, respectively and for the nine months ended September 30, 2010 and 2009, we recognized $2.6 million and $2.4 million in share-based payment expense, respectively. We expect to recognize approximately $4.6 million in stock-based compensation expense over the remaining requisite service period of five years for stock options outstanding as of September 30, 2010.

Stock Option Exchange Offer

In September 2010, we initiated an offer to exchange certain outstanding "out-of-the-money" stock options held by eligible employees (which excluded executive officers and directors) for a lesser number of stock options having a lower exercise price. In accordance with the terms of the exchange offer, in October 2010 we completed the offer, under which eligible participants exchanged an aggregate of 616,531 stock options having exercise prices ranging from $3.16 to $8.20 per share for an aggregate of 571,580 new stock options with an exercise price of $2.46, which represented 125% of the average closing price of our common stock as reported on NASDAQ for the 60-day period ending on the expiration date of the exchange offer. All other terms of the options exchanged in the offer remain unchanged with respect to the replacement options granted. The exchange offer and the exchange are described more fully in our Schedule TO, as amended, filed with the Securities and Exchange Commission.

Income Taxes

We have not recorded an income tax benefit during the current period as we have determined that it is not more likely than not that such amount will be recovered.

Intangible Assets and Other Long Lived Assets

Long-lived assets and certain identifiable intangibles are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset might not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds the fair market value of the asset. Assets to be disposed of are reported at the lower of the carrying amount or fair market value, less cost to sell.

Inventory

Inventory consists of finished goods, work-in-process and parts valued at the lower of cost (determined on the first-in, first-out basis) or market. We provide reserves for estimated obsolescence or unmarketable inventory equal to the difference between the cost of the inventory and the estimated market value based upon assumptions about future demand and market conditions. Inventory reserves at September 30, 2010 and December 31, 2009 were approximately $84,000 and $48,000, respectively.

Reclassification

Certain prior year amounts have been reclassified to conform to current presentation.

Recent Accounting Pronouncements

Fair Value Measurements Disclosures

Effective January 1, 2010, the Company adopted revised guidance intended to improve disclosures related to fair value measurements, issued by FASB. This guidance requires us to disclose separate information about significant transfers in and out of Level 1 and Level 2 and the reason for such transfers, and also requires information related to purchases, sales, issuances, and settlements information of Level 3 financial assets to be included in the rollforward of activity. The guidance also requires us to provide certain disaggregated information on the fair value of financial assets and requires us to disclose valuation techniques and inputs used for both recurring and nonrecurring fair value measurements of our Level 2 and Level 3 financial assets. The Company's policy is to recognize transfers into or out of levels as of the actual date of the event or change in circumstances that caused the transfer.

2. Debt

Silicon Valley Bank Facility

On February 18, 2010, we entered into a Loan and Security Agreement (the "Credit Facility") with Silicon Valley Bank (the "Bank"). The Credit Facility is a revolving credit facility that provides the Company with borrowing capacity of up to $5 million, subject to a percentage of our outstanding eligible accounts receivable, at a floating annual interest rate equal to the greater of (a) 6% or (b) the Bank's prime rate then in effect plus 2%. The Credit Facility matures on February 17, 2011, unless earlier terminated, and any amounts due under the Credit Facility will be secured by substantially all of the Company's assets, including our intellectual property, personal property and bank accounts. Outstanding borrowings under the facility were $2.5 million as of September 30, 2010, accruing interest at an annual rate of 6%.

The Credit Facility includes a fee of one-half of one percent (0.50%) per annum based on the average unused portion of the Credit Facility, billed quarterly.

The Credit Facility requires the Company to observe a number of financial and operational covenants, including maintenance of a specified liquidity ratio, achievement of certain adjusted EBITDA targets (as defined in the agreement), protection and registration of intellectual property rights, and certain customary negative covenants. If the Company draws on the Credit Facility, we may use the proceeds of the loans for any variety of purposes, including working capital and general corporate purposes. As of September 30, 2010, we were in compliance with all covenants.

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. If any event of default occurs the Bank 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.

Hansen Note

As described in Note 1, we issued the Hansen Note in the principal amount of $5 million in January 2010. Hansen agreed to subordinate its right to payment under the Hansen Note in favor of the Bank's right to payment under the Credit Facility, subject to certain terms and conditions.

Issuance of Preferred Stock in Exchange for Carilion Promissory Note

In 2005, we issued $5.0 million in principal amount of convertible promissory notes to Carilion that were convertible into shares of our Common Stock at a fixed price of $4.69 per share. The notes accrued simple interest at a rate of 6.0% per year and were originally scheduled to mature on December 30, 2009. In May 2008, we amended the terms of the notes to extend their due date to December 31, 2012 and to subordinate them to our credit facility with Silicon Valley Bank. We also issued warrants to purchase 10,000 shares of Common Stock at a price of $7.98 per share in connection with the amended terms.

On January 12, 2010, we exchanged the convertible notes for 1,321,514 shares of convertible preferred stock in full satisfaction of the $5.0 million principal amount due under the convertible notes and $1.2 million in accrued but unpaid interest under the notes. In addition, the warrants issued in May 2008 to purchase 10,000 shares of Common Stock were amended to reduce their strike price to $2.50 per share. As part of the exchange, the company also issued additional warrants to Carilion to purchase an aggregate of 356,000 shares of Common Stock with a strike price of $2.50. The warrants are exercisable beginning December 31, 2012 and February 1, 2013, respectively, and continuing until December 31, 2020. Please see Note 1 for discussion of accounting recognition.

3. Capital Stock and Additional Paid-in Capital

During the nine months ended September 30, 2010, we issued shares of capital stock as follows:

	Preferred Stock		Common Stock		Additional Paid-in Capital
	Shares	$	Shares	$	$
Balances, December 31, 2009	—	$ —	11,351,967	$11,352	$41,228,698
Exercise of stock options	—	—	161,598	162	226,596
Share-based compensation	—	—	—	—	887,340
Issuance of Common Stock, Hansen Settlement	—	—	1,247,330	1247	4,563,980
Stock dividends to Carilion (1)	—	—	—	17	81,616
Issuance of Warrants, Other	—	—	—	—	1,264,946
Issuance of Common Stock, Other (2)	—	—	25,000	25	91,475
Issuance of Preferred Stock, in exchange of Carilion notes	1,321,514	1,322	—	—	4,835,420
Balances, March 31, 2010	1,321,514	1,322	12,785,895	12,803	53,180,071
Exercise of stock options and warrants	—	—	330,542	331	437,086
Share-based compensation	—	—	—	—	875,675
Stock dividends to Carilion (1)	—	—	—	20	92,980
Issuance of Common Stock, Other	—	—	2,293	2	4,998
Balances, June 30, 2010	1,321,514	1,322	13,118,730	13,156	54,590,810
Exercise of stock options and warrants	—	—	156,664	157	118,544
Share-based compensation	—	—	—	—	853,009
Stock dividends to Carilion (1)	—	—	—	20	92,980
Issuance of Common Stock, Other	—	—	5,302	5	11,495
Balances, September 30, 2010	**1,321,514**	**1,322**	**13,280,696**	**13,338**	**55,666,838**

(1) The stock dividends payable in connection with Carilion's Series A Preferred Stock will be issued subsequent to September 30, 2010.
(2) In January 2010 we settled a complaint filed by a former employee in exchange for the payment of $13,000 in cash and the issuance of 25,000 shares of our common stock. The settlement was included as an accrued liability on our December 31, 2009 consolidated balance sheet.

See Note 1 for a description of the securities issued to Hansen and Note 2 for a description of the issuance of preferred stock to Carilion.

4. Operating Segments

Our operations are divided into two operating segments—Technology Development and Product 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 revenue primarily from services.

The Product and Licensing segment develops and sells products or licenses technologies based on commercially viable concepts developed by the Technology Development segment. The Product and Licensing segment derives its revenue from product sales, funded product development and technology licenses.

Through September 30, 2010, our interim President and Chief Operating Officer and his direct reports collectively represented our chief operating decision makers, and they evaluate segment performance based primarily on revenue 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 Securities and Exchange Commission on March 26, 2010).

The table below presents revenues and operating loss for reportable segments:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
	(unaudited)		(unaudited)	
Revenues :				
Technology development revenues	$5,027,024	$ 6,493,741	$16,929,621	$ 19,795,638
Product and license revenues	3,558,118	2,381,184	8,539,953	6,234,621
Total revenues	$8,585,143	$ 8,874,925	$25,469,574	$ 26,030,259
Technology development operating loss	(750,549)	(1,039,082)	(1,460,599)	(2,906,719)
Product and license operating gain/ (loss)	$ 443,608	$ (879,935)	$ (417,513)	$(41,390,984)
Total operating loss	$ (306,941)	$(1,919,017)	$ (1,878,112)	$(44,297,703)
Depreciation, technology development	153,165	226,918	529,909	764,027
Depreciation, product and license	108,410	83,209	267,306	240,630
Amortization, technology development	29,323	37,491	103,969	379,902
Amortization, product and license	20,754	13,747	52,446	119,650

Additional segment information is as follows:

The table below presents assets for reportable segments:

	September 30, 2010	December 31, 2009
Total segment assets:		
Technology development	$12,642,273	$15,937,039
Product and license	8,948,175	5,820,885
Total	$21,590,447	$21,757,924
Property plant and equipment, and intangible assets, Technology development	$ 2,341,916	$ 3,449,790
Property plant and equipment, and intangible assets, Product and license	$ 1,657,604	$ 1,260,010

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

The United States Government accounted for approximately 63% and 76% of total consolidated revenues for the three months ended September 30, 2010 and 2009, respectively and 68% and 79% of revenues for the nine months ended September 30, 2010 and 2009, respectively.

International revenues (customers outside of the United States) accounted for approximately 10% and 6.7% of total consolidated revenues for the three months ended September 30, 2010 and 2009, respectively and 10% and 7% of total consolidated revenues for the nine months ended September 30, 2010 and 2009, respectively.

5. 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.

We have an outstanding letter of credit as of September 30, 2010, in the amount of $239,832 in favor of the Industrial Development Authority of Montgomery County, Virginia, to support a lease of office space. This letter of credit expires in June 2012.

In August 2010, our Luna Technologies division executed a non-cancelable $1.8 million purchase order for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in October 2010.

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.

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

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.

Overview

We research, develop and commercialize innovative technologies in several areas of focus including instrumentation, test & measurement and sensing products, secure computing and communications, and health-care products. We have a business model that is designed to accelerate the process of bringing new and innovative products to market. Although revenues from product sales currently represent less than one-half of our total revenues, we continue to invest in product development and commercialization, which we anticipate will lead to increased product sales growth. In the future, we expect that revenues from product sales will represent a larger proportion of our total revenues. In addition, we anticipate that these revenues will reflect a broader and more diversified mix of products as we develop and commercialize new products.

We have developed a disciplined and integrated process to accelerate the development and commercialization of innovative technologies. Our business model provides the infrastructure, resources and know-how throughout the process of developing and commercializing new products. To manage a diverse set of products effectively across a range of development stages, we are organized into two main groups: our Technology Development Division and our Product and License Division. These groups work together through all product development stages, including:

- Searching for emerging technologies based on market needs;
- Conducting applied research;
- Developing and commercializing innovative products; and
- Applying proven technologies and products to new market opportunities.

Our total revenues were $8.6 million and $8.9 million during the three months ended September 30, 2010 and 2009, respectively, and we had net losses attributable to common stockholders of $0.5 million and $2.0 million for the same periods, respectively.

We generate revenues through technology development services provided under contractual arrangements, product sales and license fees. Historically, our technology development revenues have accounted for a large and growing proportion of our total revenues, and we expect that they will continue to represent a significant portion of our total revenues for the foreseeable future. The rate at which we have received new research contract awards declined significantly during the period of our reorganization in 2009 and early 2010, and this resulted in a decline in our technology development revenues for the three months ended September 30, 2010, as compared to the three months ended September 30, 2009. We regularly have 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 these 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 (the amount for which money has been directly authorized by the U.S. Congress or for which a purchase order has been received by a commercial customer) and unfunded backlog (firm orders for which funding has not been appropriated). Indefinite delivery and quantity contracts and unexercised options are not reported in total backlog. The approximate value of backlog for our Technology Development Division was $29.6 million as of September 30, 2010, as compared to $23.5 million as of September 30, 2009.

Revenues from product sales currently represent a smaller proportion of our total revenues, and, historically, we have derived most of these revenues from the sales of our sensing systems and products that make use of light-transmitting optical fibers, or fiber optics. Although we have been successful in licensing certain technology in past years, we do not expect license revenues to represent a significant portion of future revenues; however, over time we do intend to gradually increase such revenues. In the near term, we expect revenues from product sales to increase primarily in areas associated with our fiber optic instrumentation and test and measurement platforms. We also expect to continue our efforts in product development and commercialization, which we anticipate will lead to increased product sales growth. In the future, we expect that revenues from product sales will represent a larger proportion 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 do expect to continue to incur significant expenses as we expand our business, including increased expenses for research and development, sales and marketing, and manufacturing capability, which could result in losses. We may also grow our business in part through acquisitions of additional companies and complementary technologies, which could cause us to incur transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we may continue to incur losses for the foreseeable future, and these losses could be substantial.

There was a rapid softening of the economy and tightening of the financial markets in the second half of 2008 that continued throughout 2009 and into 2010. This slowing of the economy has in some instances reduced the financial capacity of our customers and possibly our potential customers, thereby slowing spending on the products and services we provide. The outlook for the economy for the remainder of 2010 and for 2011 remains uncertain.

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 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 product revenues reflect amounts that we receive from sales of our products or development of products for third parties and represented approximately 41% and 34% of our total revenues for the three- and nine- month periods ended September 30, 2010, respectively. Our license revenues are composed of fees paid to us in connection with licenses or sublicenses of certain patents and other intellectual property.

Cost of Revenues

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

Cost of revenues associated with product sales and license 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; shipping and handling; provisions for product warranty; inventory obsolescence; and overhead costs related to these activities.

Operating Expense

Operating expense consists of selling, general and administrative expenses, as well as expenses related to research and development, 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 Division; product development activities not provided under contracts with third parties; and overhead costs related to these activities.

Our operating expenses include stock-based compensation charges. We recorded stock-based compensation charges of approximately $0.9 million for the three months ended September 30, 2010 and $2.6 million for the nine months ending September 30, 2010. We also expect to recognize aggregate stock-based compensation expense of $4.6 million in future periods through 2015 relating to stock options outstanding as of September 30, 2010.

Operating expense also includes expenses associated with the issuance of a warrant to Hansen as part of our settlement with them. For the three and nine months ended September 30, 2010, we recorded operating expense of $28,000 and $150,000, respectively, associated with this warrant.

Stock Option Exchange Offer

In September 2010, we initiated an offer to exchange certain outstanding “out-of-the-money” stock options held by eligible employees (under which excluded executive officers and directors) for a lesser number of stock options having a lower exercise price. In accordance with the terms of the exchange offer, in October 2010 we completed the offer, which eligible participants exchanged an aggregate of 616,531 stock options having exercise prices ranging from $3.16 to $8.20 per share for an aggregate of 571,580 new stock options with an exercise price of $2.46, which represented 125% of the average closing price of our common stock as reported on NASDAQ for the 60-day period ending on the expiration date of the exchange offer. All other terms of the options exchanged in the offer remain unchanged with respect to the replacement options granted. The exchange offer and the exchange are described more fully in our Schedule TO, as amended, filed with the Securities and Exchange Commission. The amount of the expense resulting from the exchange offer is not significant.

Litigation Reserve

In the first quarter of 2009, we established a litigation reserve of $36.3 million in connection with the Hansen litigation, equal to the original jury verdict against us, pending final resolution of the matter. In January 2010, we settled our litigation with Hansen and issued to Hansen a secured promissory note in the principal amount of $5.0 million as well as 1,247,330 shares of our common stock with a fair value of approximately $4.7 million, based on the closing price of our common stock on January 11, 2010. Therefore, in the fourth quarter of 2009, we adjusted the prior litigation reserve downward to $9.7 million. This adjustment was recorded on our statement of operations as a reduction of operating expenses during the fourth quarter of 2009.

Interest Income/Expense

Interest expense includes interest accrued on our outstanding bank credit facilities, our 6% senior convertible notes issued to Carilion that were outstanding until January 2010 and our promissory note issued to Hansen in January 2010, which we refer to in this report as the Hansen Note, as well as interest incurred with respect to our capital lease obligations. From January 1, 2009 through July 15, 2009, we had borrowed $5.0 million under a term loan with Silicon Valley Bank or SVB. On July 15, 2009, we repaid the outstanding balance of our term loan with SVB and terminated the credit facility. In February 2010, we entered into a new revolving line of credit with SVB for up to $5.0 million, of which $2.5 million was outstanding as of September 30, 2010. In addition, as of September 30, 2010 we also had a $4.2 million principal balance outstanding on the Hansen Note. During the year ended December 31, 2009, we also had the full $5.0 million principal balance outstanding under the senior convertible notes issued to Carilion. During January 2010, the principal balance and accrued interest under the senior convertible notes was converted in full into shares of our Series A Preferred Stock and no amounts were outstanding under these notes as of September 30, 2010. The interest expense for the three and nine months ended September 30, 2010 primarily includes approximately $90,000 and $282,000, respectively, of interest on the Hansen Note and approximately $35,000 and $77,000, respectively, of interest on the revolving line of credit with SVB. The interest expense for the same periods of 2009 is attributable to the prior term loan with SVB and the convertible notes issued to Carilion outstanding at that time.

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 US GAAP. The preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the amounts reported in our financial statements and the accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or judgments. Our critical accounting policies are described in the Management's Discussion and Analysis section and the notes to our audited consolidated financial statements previously included in our Annual Report on Form 10-K for the period ended December 31, 2009, as filed with the Securities and Exchange Commission on March 26, 2010. There have been no material changes to the descriptions therein.

Results of Operations

Three Months Ended September 30, 2010 Compared to Three Months Ended September 30, 2009

Revenues

Total revenues decreased 3.0% to $8.6 million for the three months ended September 30, 2010 from $8.9 million for the three months ended September 30, 2009. Revenues within our Technology Development Division decreased 22.6% from the corresponding period in 2009, while revenues in our Product and License Division increased by 49.4%. Technology development revenues decreased to $5.0 million for the three months ended September 30, 2010 from $6.5 million for the corresponding 2009 period, due primarily to a decline in direct labor hours and other direct costs associated with a reduction or slowing in awards for new long-term development projects during our reorganization in the latter half of 2009. We recognized approximately $3.6 million in Product and License revenues in the third quarter of 2010 as compared with $2.4 million for the corresponding 2009 period, primarily reflecting increased demand for fiber optic test and measurement equipment during the quarter.

Cost of Revenues

Cost of revenues decreased 4.1%, to $5.1 million for the three months ended September 30, 2010 from $5.4 million for the corresponding 2009 period, primarily corresponding to the decreased revenue in Technology Development, partially offset by an increase in costs associated with the corresponding increase in revenues in the Product and License Division. The Technology Development Division cost of sales decreased by approximately 14.6%, from $4.1 million to $3.5 million, due primarily to the decline in direct labor hours described above. Product and License cost of sales increased by $0.4 million, or 31.0%, from $1.2 million to $1.6 million, reflecting the growth in our product sales during the third quarter of 2010.

Our resulting gross profit was $3.4 million for the quarter ended September 30, 2010 compared to $3.5 million for the corresponding quarter in 2009. The growth in our Product and License segment offset the gross profit impact of lower revenues from our Technology Development segment. Revenues from our Product and License Division business segment typically carry a higher gross margin percentage than revenues from our Technology Development Division business segment.

Operating Expense

Operating expense decreased to $3.7 million for the three months ended September 30, 2010 from $5.4 million for the corresponding quarter in 2009. The improvement in operating expenses is primarily attributable to a reduction in legal expenses related to our filing for bankruptcy protection in July of 2009 and resulting reorganization, which totaled approximately $0.9 million in the third quarter of 2009 and approximately $54,000, in the third quarter of 2010. Selling, general and administrative expenses decreased by $0.5 million to $3.4 million for the three months ended September 30, 2010 from $3.9 million for the three months ended September 30, 2009, primarily the result of lower legal expenses, as we incurred expenses associated with our Hansen settlement during the second half of 2009 but no such expenses during the three months ended September 30, 2010. Research, development and engineering expense also decreased for the three months ended September 30, 2010 as compared to the corresponding quarter in 2009 by approximately $0.4 million.

Other Income (Expense)

Net interest expense for the three months ended September 30, 2010 was approximately $125,000 compared to a net interest expense of approximately $124,000 during the same period in 2009. During the third quarter of 2009 we paid off our $5.0 million term loan facility with SVB and therefore only incurred interest expense on the $5.0 million promissory note to Carilion for the majority of the quarter. During the quarter ended September 30, 2010 we had a line of credit with SVB with an average outstanding balance of $2.5 million and $4.2 million balance on our promissory note to Hansen.

Nine Months Ended September 30, 2010 Compared to Nine Months Ended September 30, 2009

Revenues

Total revenues decreased 2.2% to $25.5 million for the nine months ended September 30, 2010 from $26.0 million for the nine months ended September 30, 2009. Revenues within our Technology Development Division decreased 14.5% from the corresponding period in 2009, while revenues in our Product and License Division increased by 37.0%. Technology development revenues decreased to $16.9 million for the nine months ended September 30, 2010 from $19.8 million for the corresponding 2009 period, due primarily to decline in direct labor hours and other direct costs associated with a reduction or slowing in awards for new long-term development projects during our reorganization in the latter half of 2009, We generated approximately $8.5 million in Product and License revenues in the nine months ended September 30, 2010 as compared with $6.2 million for the corresponding 2009 period, primarily reflecting increased shipments of our OVA and OBR products, which increased by 63% compared to the first nine months of 2009.

Cost of Revenues

Cost of revenues decreased 3.2%, to $15.9 million for the nine months ended September 30, 2010 from $16.5 million for the corresponding 2009 period, primarily corresponding to the larger share of our consolidated revenue being provided by our Product and License Division and its greater gross profit. The Technology Development Division cost of sales decreased by approximately 12.4%, from $13.2 million to $11.6 million, reflecting a similar decrease in Technology Development Division revenues. Product and License cost of sales increased by 32.3%, from $3.3 million to $4.3 million, reflecting the growth in our product sales and increased costs associated with product development contracts.

Our resulting gross profit was essentially flat at $9.6 million for each period, or 37.6% of revenue for the nine months ended September 30, 2010 and 36.8% of revenue, for the nine months ended September 30, 2009.

Operating Expense

Operating expense decreased to $11.5 million for the nine months ended September 30, 2010 from $53.9 million for the corresponding period in 2009. This decrease is primarily due to the $36.3 million Hansen litigation reserve recorded in the first nine months of 2009 and the associated impairment of goodwill and other intangible assets totaling $1.3 million in our Product and License Division business segment. Excluding those charges, operating expenses were $16.3 million for the nine months ended September 30, 2009.

Selling, general and administrative expenses decreased approximately $3.0 million in the nine months ended September 30, 2010 from the corresponding prior year period, due primarily to the Hansen litigation expense of $3.3 million in 2009 with an insignificant amount in 2010, partially offset by an increase of selling commissions due to an increase in sales in our Product and License division. Also, our reorganization expenses decreased approximately $0.7 million to $0.2 million in the nine months ended September 30, 2010 from $0.9 million in the corresponding prior year period.

Research, development, and engineering expenses decreased $1.1 million in the nine months ended September 30, 2010 as compared to the corresponding period in 2009, due to the release of new products by our Product and License division.

Other Income (Expense)

Net interest expense for the nine months ended September 30, 2010 was approximately $352,000 compared to a net interest expense of approximately $423,000 during the same period in 2009. During the third quarter of 2009 we paid off our $5.0 million term loan facility with SVB and therefore only had the $5.0 million promissory note to Carilion for the majority of the quarter. During the quarter ended September 30, 2010 we had a line of credit with SVB with an average outstanding balance of $2.5 million and a promissory note to Hansen with an average outstanding balance of $4.3 million.

Liquidity and Capital Resources

At September 30, 2010, our total cash and cash equivalents were approximately $7.2 million. We expect that the settlement of our litigation with Hansen and our emergence from bankruptcy in January 2010 will improve our cash flows in future periods.

On February 18, 2010, we entered into a line of credit facility with SVB, under which we have a borrowing capacity of up to $5 million at a floating annual interest rate equal to the greater of (a) 6% or (b) SVB's prime rate then in effect plus 2%. The facility matures on February 17, 2011, unless earlier terminated, and any amounts due under the facility are secured by substantially all of our assets, including our intellectual property, personal property and bank accounts. Amounts due to Hansen under our January 2010 promissory note to Hansen are subordinated to amounts due to SVB under the line of credit, subject to certain terms and conditions. On March 30, 2010, we borrowed $2.5 million under the line of credit with SVB, and $2.5 million remains available under the facility as of the date of this report. The line of credit includes a fee of one-half of one percent (0.50%) per annum based on the average unused portion of the facility from time to time.

The SVB facility requires us to observe a number of financial and operational covenants, including maintenance of a specified liquidity ratio, achievement of certain adjusted EBITDA targets (as defined in the agreement), protection and registration of intellectual property rights, and certain customary negative covenants. We may use the proceeds of borrowings for any variety of purposes, including working capital and general corporate purposes. At September 30, 2010 we were in compliance with the required covenants.

The line of credit with SVB 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. If any event of default occurs, SVB may declare due immediately all borrowings and foreclose on the collateral. Furthermore, an event of default under the line of credit would result in an increase in the interest rate on any amounts outstanding.

We believe that our current cash balance, in addition to the funds available to us under the line of credit with SVB, provide adequate liquidity for us to meet our working capital needs during the remainder of 2010 and into 2011.

Discussion of Cash Flows

Recent Activity

Cash used in operations improved approximately $4.4 million in the nine months ended September 30, 2010 to $0.3 million compared to $4.7 million for the same period in 2009, primarily due to an improvement in our net loss. For the nine months ended September 30, 2009, our net loss included non-cash charges related to a litigation reserve, reserve of deferred tax assets and impairment of intangible assets totaling approximately $38.2 million. Excluding the impact of these non-recurring charges our net loss for the first nine months of 2009 would have been approximately $7.1 million compared to our net loss of $2.2 million for the first nine months of 2010, an improvement of approximately $4.9 million. Additionally, during the first nine months of 2010, we replaced a cash deposit of approximately $363,000 held by a vendor with a letter of credit and received a refund of that deposit back from the vendor. These improvements to cash flow were partially offset by reductions in accounts payable as our pre-petition liabilities related to our Chapter 11 reorganization were paid during 2010.

Our cash flows from investing activities, consisting only of purchases of equipment and costs associated with certain intangible assets, were $0.2 million during each of the nine months ended September 30, 2010 and 2009.

Net cash provided by financing activities during the nine months ended September 30, 2010 was $2.5 million, which was the result of borrowing $2.5 million under our line of credit with SVB, and $0.8 million received upon the exercise of warrants and employee stock options, offset by paying down $0.8 million of principal on the Hansen Note. During the nine months ended September 30, 2009, we paid the principal of $5.0 million of our credit facility with SVB and closed that facility, which accounted for substantially all of our financing activities during that period.

Summary of Contractual Obligations

We lease our facilities in Blacksburg, Charlottesville, Danville and Roanoke, Virginia under operating leases that expire on various dates through December 2017 or under a month-to-month arrangement. Upon expiration of the leases, we may exercise certain renewal options as specified in the leases.

We also lease certain computer equipment and software under capital lease agreements that expire through September 2013. The assets subject to these obligations are included in property and equipment on our consolidated balance sheet.

In August 2010, our Luna Technologies division executed a non-cancelable $1.8 million purchase order for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in October 2010.

The Hansen Note is payable in quarterly installments through April 2014. As of September 30, 2010, $4.2 million of principal was outstanding under the Hansen Note.

We have licensed or acquired certain technologies from licensors or sellers for which we owe in the future minimum royalties or other contractual amounts aggregating $3.1 million.

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 United States 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. As of September 30, 2010 we had $7.2 million deposited in cash and cash equivalents.

We are exposed to interest rate fluctuations as a result of our $5.0 million revolving line of credit with SVB, which has a variable rate. We do not currently use derivative instruments to alter the interest rate characteristics of any of our debt. As of September 30, 2010, the revolving debt facility interest rate was 6%. For the principal amount of $2.5 million outstanding under the line of credit as of September 30, 2010, a change in the interest rate by one percentage point for one year would result in a change in our annual interest expense of approximately $25,000.

Although we believe that these measures are indicative of our sensitivity to interest rate changes, they do 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 September 30, 2010, all payments made under our research contracts have been denominated in United States dollars. Our product sales to foreign customers are also denominated in U.S. dollars, and we do not receive payments in foreign currency. As such, we are not directly exposed to currency gains or losses resulting from fluctuations in foreign exchange rates.

ITEM 4. *CONTROLS AND PROCEDURES*

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13-15(e) and led-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 interim President and Chief Operating Officer and our interim Chief 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 interim President and Chief Operating Officer and interim Chief Financial Officer have concluded that, as of September 30, 2010, 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 quarter ended September 30, 2010 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. *LEGAL PROCEEDINGS*

None.

ITEM 1A. *RISK FACTORS*

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

RISKS RELATING TO OUR BUSINESS GENERALLY

Our recently announced senior management changes and our search for a new chief executive officer could cause disruption in our business and may not be successful.

On August 10, 2010, as part of our previously announced transition plan for the company's leadership, Dr. Kent Murphy, our founder, resigned from his position as our chief executive officer to assume the role of senior strategic and technology advisor to the company in a consulting capacity. Dr. Murphy remains a member of the board of directors, serving in the new role as the vice chairman. We are conducting a search for a new chief executive officer to replace Dr. Murphy. At the time of Dr. Murphy's resignation, we also announced a number of other senior management changes. Jonathan Cool, who had been serving as our acting president and chief operating officer since May 2010, returned to his position on the board and as chairman of the board's strategy committee, where he can focus on strategic direction of the company. Dale Messick, our former chief financial officer, assumed the roles of interim president and interim chief operating officer, and Scott Graeff, our chief commercialization officer and treasurer, assumed the additional role of interim chief financial officer. We currently expect that Messrs. Messick and Graeff will serve in their newly designated interim capacities until we hire a new chief executive officer, at which time Mr. Messick will return to being chief financial officer.

Implementation of these senior management transitions has just recently begun, and there can be no guarantee that any of these transitions will be successful. During this period of transition, there may be operational inefficiencies as Mr. Messick, as interim president and interim chief operating officer, assumes responsibility for our corporate operations, and there can be no guarantee that the transition of operational responsibilities from Mr. Cool to Mr. Messick will be successful. Similarly, as Mr. Graeff assumes responsibility for the financial and accounting functions, there can be no guarantee that the transition of these responsibilities will be successful.

Moreover, there can be no guarantee that our efforts to identify and recruit a permanent chief executive officer will be successful, or that a transition to a new chief executive officer will be smooth or successful. Leadership transitions can be inherently difficult to manage and may cause uncertainty or a disruption to our business or may increase the likelihood of turnover in key officers and employees.

Competition for qualified personnel, particularly those with the significant skills and expertise of many of Luna's officers and employees, remains intense. 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 could adversely affect our business, results of operations and financial condition. Also, the uncertainty inherent in our senior management transitions could lead to concerns from current and potential customers, suppliers and other third parties with whom we do business, any of which could have a material adverse impact on our operations. Finally, we have certain contractual obligations to adequately staff certain development projects, and a loss of key personnel could lead to our inability to meet these obligations, which in turn could expose us to claims for significant damages under any such agreement.

Our business could suffer as a result of our filing for reorganization under Chapter 11 of the U.S. Bankruptcy Code in 2009.

As described elsewhere in this report, in July 2009, we filed a voluntary petition for relief in order to reorganize under Chapter 11 of the United States Bankruptcy Code, including a proposed plan of reorganization, under Chapter 11 of the U.S. Bankruptcy Code. In January 2010, the bankruptcy court approved our reorganization plan and we emerged from bankruptcy on that date. Even though our plan of reorganization has been implemented, operating results may be adversely affected by the possible reluctance of prospective customers, suppliers and lenders to do business with a company that recently emerged from bankruptcy proceedings. For example, the rate at which we received new research contract awards declined significantly during the period of our reorganization in 2009 and early 2010, which has resulted in a decline in our technology development revenues and may continue to do so in the future. In addition, our emergence from bankruptcy may result in reputational risks that make it difficult to attract and retain employees and work with customers and suppliers.

We have recently experienced a decline in government research contract awards, upon which we have historically relied for a significant portion of our revenues. If we continue to experience a decline in our receipt of these awards, or if there is any decline in government funding of existing or future government research contracts, including Small Business Innovation Research (SBIR) contracts, it could adversely affect our revenues, our cash flows and our ability to fund our growth.

Technology development revenue, which consists primarily of government-funded research, accounted for approximately 67% of our consolidated total revenues for the nine months ended September 30, 2010 and 76% for the same period in 2009. 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. The U.S. government, for example, 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, we may not be successful in securing future contracts. For example, the rate at which we received new research contract awards declined significantly during the period of our reorganization in 2009 and early 2010, which has resulted in a decline in our technology development revenues and a decline in our backlog. If we are unable to increase the rate at which we receive new research contract awards, we may continue to experience year over year declines in revenue for this portion of our business, which could have a significant adverse impact on our results of operations, cash flows and financial condition.

In addition to contract cancellations and changes in agency budgets, our future financial results may be adversely affected by curtailment of the U.S. government's use of contract research providers, including curtailment due to government budget reductions and related fiscal matters. These or other factors could cause U.S. defense and other federal agencies to conduct research internally rather than through commercial research 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. Any of these actions could limit our ability to obtain new contract awards and adversely affect our revenues and cash flows and our ability to fund our growth.

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 U.S. Small Business Administration, or SBA, that we no longer qualify to receive SBIR funding could adversely affect our business.

We compete as a small business for some of our government contracts. As described above, our revenues under the 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.

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 revenue eligibility criteria. These eligibility criteria are applied as of the time of the award of a contract or grant. We believe that we are currently in compliance with the SBIR eligibility criteria, but we cannot assure you that the U.S. Small Business Administration, or SBA, the federal agency that administers the SBIR program, will interpret its regulations in our favor. As we grow our business, it is foreseeable that we will eventually exceed the SBIR eligibility limitations, in which case we may be required to seek alternative sources of revenues or capital.

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. In determining whether we are affiliated with any other entity, the SBA analyzes whether another entity controls or has the power to control us. As of September 30, 2010, we had approximately 192 employees. Our largest institutional stockholder, Carilion, beneficially owns approximately 27% of our common stock, including shares issuable upon conversion of non-voting preferred stock, as well as shares of common stock underlying warrants. If the SBA were to make a determination that we are affiliated with Carilion, we could exceed the size limitations, as Carilion has over 500 employees. In that case, we could lose eligibility for new SBA contracts, public contracts, grants and other awards that are set aside for small businesses, including SBIR grants.

In order to be eligible for SBIR contracts and grants, we must also be 51% owned and controlled by individuals who are U.S. citizens or permanent resident aliens. 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, public contracts, grants and other awards that are set aside for small businesses, including SBIR grants.

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 level of business activity.

Global economic and political conditions affect our customers' businesses and the markets they serve. A severe and/or prolonged economic downturn or a negative or uncertain political climate could adversely affect our customers' financial condition 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 that 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.

There was a rapid softening of the economy and tightening of the financial markets in the second half of 2008 that continued throughout 2009. This slowing of the economy has reduced the financial capacity of our customers and possibly our potential customers, thereby slowing spending on the products and services we provide. The outlook for the economy for the remainder of 2010 and into 2011 remains uncertain, and until there is a sustained economic recovery our revenues and results of operations could be negatively impacted.

Our failure to attract, train and retain skilled employees or members of our senior management 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 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 such difficulty, 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 where the supply of experienced qualified candidates is limited. Any failure to do so would have an adverse effect on our business.

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.

We have a history of losses, and because our strategy for expansion may be costly to implement, we may experience continuing losses and we may never achieve or maintain profitability or positive cash flow.

We incurred consolidated net losses attributable to common stockholders of approximately $2.5 million and $45.3 million for the nine months ended September 30, 2010 and 2009, respectively. As of September 30, 2010, our accumulated deficit totaled $46.6 million. While the magnitude of our net loss during the first nine months of 2009 exceeded our historical losses due to expenses associated with litigation, which was resolved in December 2009, we expect to continue to incur significant expenses as we expand our operations, including increased expenses for research and development, sales and marketing, manufacturing, finance and accounting personnel and expenses associated with being a public company. 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 that we may likely continue to incur losses for the foreseeable future, and these losses could be substantial.

Because of the numerous risks and uncertainties associated with our business, we are unable to predict when or if we will be able to achieve profitability again. 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 might require additional capital to support and expand our business, and this capital might not be available on favorable terms, if at all.

We intend to continue to make investments to support our business growth, including the development of new products and the enhancement of 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 warrants in connection with the financing, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders 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.

As part of the settlement of our litigation with Hansen Medical, Inc., or Hansen, we issued to Hansen a warrant for additional shares of our common stock in an amount such that Hansen may maintain ownership of 9.9% of our total outstanding common stock for a period of three years at a price of one cent per common share. In the event that we raise capital through the issuance of common stock, stockholders will experience further dilution to the extent that Hansen exercises this warrant, which may make it more difficult to raise equity capital or adversely impact the price at which we are able to raise equity capital.

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

Our settlement agreement and related agreements with Hansen could result in our making substantial future cash payments.

As part of the settlement of our litigation with Hansen, we issued a promissory note payable to Hansen in the principal amount of $5.0 million. The note bears interest at a rate of 8.5% and is payable in quarterly installments commencing April 2010 and continuing through January 2014. Additionally, we entered into a Development and Supply Agreement with Hansen under which we will develop certain fiber optic shape sensing technologies or products for Hansen. Hansen is required to pay us for the development services provided. In the event that the amounts owed by Hansen under the Development and Supply Agreement exceed the quarterly installment payment under Hansen's promissory note, then the excess amount will not be payable in cash by Hansen but will reduce the outstanding principal balance on the note to Hansen. Additionally, Hansen may terminate the Development and Supply Agreement at any time without further obligation, while we would remain liable for the payments due under the note, which would have a material adverse effect on our cash flows. The Development and Supply Agreement also provides for substantial liquidated damages in the event that we are deemed not to have complied in a commercially reasonable good faith manner with respect to our technology development obligations under the agreement. We cannot assure you that there will be no disagreements with Hansen as to whether we are complying with our obligations under the Development and Supply Agreement. In the event that we are required to make substantial payments to Hansen under the Development and Supply Agreement, it would adversely affect our results of operations and cash flows.

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 revenues mix that contains significantly larger product sales and license revenues components. Product sales and license revenues potentially offer greater scalability than services-based contract research revenues. Our current plan is to increase our portfolio of commercial products and, accordingly, we expect that our future product sales and license revenues will represent a larger percentage of total revenues. However, if we are unable to develop and grow our product sales and license revenues to augment our contract research revenues, our ability to execute our business model or grow our business could suffer.

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

While historically we have developed and commercialized only a few products at a time, we plan to grow our revenues by developing and commercializing multiple products concurrently across many industries, technologies and markets. Our ability to expand our business by developing and commercializing multiple products simultaneously requires that we manage a diverse range of projects, and expand our personnel resources. Our inability to do any of these could prevent us from successfully implementing our growth strategy, and our revenues and profits could be adversely affected.

To advance the development of multiple promising potential products concurrently, we need to manage effectively the logistics of maintaining the requisite corporate, operational, administrative and financing functions for each of these product opportunities. Potentially expanding our operations into new geographic areas and relying on multiple facilities to develop and manufacture different products concurrently pose additional challenges. We have little experience in managing these functions simultaneously for multiple projects in development or in building new infrastructure and integrating the operations of various facilities. If we cannot manage this process successfully, we may be subject to operating difficulties, additional expenditures and limited revenue growth.

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; this may slow the rate of growth of our contract research revenue or our product development efforts.

We may not be successful in identifying market needs for new technologies and developing new products to meet those needs.

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

We 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 in a timely manner, could impair our ability to meet the demand of our customers and harm our business.

If we are unable to secure third-party reimbursement for our medical products, our revenue and net loss could be adversely affected.

In both the United States and foreign markets where we intend to sell our medical products, third-party payers such as the government and health insurance companies are generally responsible for hospital and doctor reimbursement for medical products and services. Governments and insurance companies carefully review and may challenge the prices charged for medical products and services. Reimbursement rates from private insurance companies vary depending on the procedure performed, the third party involved, the insurance plan involved, and other factors. In the United States, reimbursement for medical procedures under the Medicare and Medicaid programs is administered by Centers for Medicare & Medicaid Services. Medicare reimburses both hospitals and physicians a pre-determined, fixed amount based on the procedure performed. This fixed amount is paid regardless of the actual costs incurred by the hospital or physician in furnishing the care and is often unrelated to the specific devices used in that procedure. Thus, any reimbursements that hospitals or physicians obtain for using our medical products will generally have to cover any additional costs that hospitals incur in purchasing such products.

Hospitals and medical centers to which we intend to sell our medical products typically bill the services performed with our products to various third-party payers, such as Medicare, Medicaid and other government programs and private insurance plans. If hospitals do not obtain sufficient reimbursement from third-party payers' for procedures performed with our products, or if governmental and private payors' policies do not permit reimbursement for services performed using our products, demand for our product may be negatively impacted.

In countries outside the United States, reimbursement is obtained from various sources, including governmental authorities, private health insurance plans and labor unions. To sell our product in foreign markets, we may need to seek international reimbursement approvals. We cannot be certain whether such required approvals will be obtained in a timely manner or at all.

Furthermore, any regulatory or legislative developments in domestic or foreign markets that eliminate or reduce reimbursement rates for procedures performed with our products could harm our ability to sell our products or cause downward pressure on the prices of our products, either of which would have a negative effect on our product revenue and net loss.

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

We face or will face substantial competition from a variety of companies in several different markets. Our competitors in contract research include, but are not limited to, companies such as General Dynamics Corporation, Lockheed Martin Corporation, SAIC, Inc. and SRA International, Inc. In the instrumentation and test and measurement products market, our competitors include, but are not limited to, large companies such as Agilent Technologies, Inc., Analog Devices, Inc., Freescale Semiconductor, Inc., JDS Uniphase Corp., Robert Bosch GmbH and Silicon Sensing, as well as emerging companies. In addition, in the MRI contrast agent market our competitors include Amersham Plc, Berlex Laboratories, Inc., Bracco Diagnostics, Inc., and Mallinckrodt Inc.

The products that we have developed or are currently developing will compete with other technologically innovative products as well as products incorporating conventional materials and technologies. We expect that our products will face competition in a wide range of industries, including telecommunications, industrial instrumentation, healthcare, military and security applications.

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 net revenues may fail to increase or may decline.

We have limited experience manufacturing our products in commercial quantities in a cost-effective manner, which could adversely impact our business.

In the past, we produced most of our products on a custom order basis rather than pursuant to large contracts that require production on a large volume basis. Accordingly, other than the commercial manufacture of products by our Luna Technologies division, we have no experience manufacturing products in large volume. Because our experience in large scale manufacturing is limited, we may encounter unforeseen difficulties in our efforts to manufacture other products or materials in commercial quantities or have to rely on third party contractors over which we may not have direct control to manufacture our products. For example, we may need to develop or in-license Trimetasphere® nanomaterial purification and isolation technology, which would result in manufacturing delays or shortfalls. We may also encounter difficulties and delays in manufacturing our products for any of the following reasons:

- we may need to expand our manufacturing operations, and our production processes may have to change to accommodate this growth;
- to increase our manufacturing output significantly, we will have to attract and retain qualified employees, who are in short supply, for the assembly and testing operations;
- we might have to sub-contract to outside manufacturers which might limit our control of costs and processes; and
- our manufacturing operations may have to comply with government specifications.

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

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

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 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 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; 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.

RISKS RELATING TO OUR REGULATORY ENVIRONMENT

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 specific laws and regulations could result in the imposition of fines and penalties or the 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 improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. In addition, our reputation could suffer serious harm if allegations of impropriety were made against us.

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

We may also be prohibited from commercially selling certain products that we develop under our Technology Development division or related products based on the same core technologies if the U.S. government determines that the commercial availability of those products could pose a risk to national security. For example, certain of our wireless technologies have been classified as secret by the U.S. government and as a result we cannot sell them commercially. Any of these determinations would limit our ability to generate product sales and license revenues.

Our 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 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 Foreign Corrupt Practices Act. Failure by us or our sales representatives or consultants to comply with these laws and regulations could result in administrative, civil, or criminal liabilities and could result in suspension of our export privileges, which could have a material adverse effect on our business. Changes in regulation or political environment may affect our ability to conduct business in foreign markets including investment, procurement, and repatriation of earnings.

Our health care and medical products are 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.

Certain of our current and potential products will require regulatory clearances or approvals prior to commercialization. In particular, our Trimetasphere® nanomaterial-based MRI contrast agent will be considered a drug under the Federal Food, Drug and Cosmetic Act, or FDC Act, and our EDAC® ultrasound diagnostic devices for measuring certain medical conditions will be considered medical devices under the FDC Act. Drugs and some medical devices are subject to rigorous preclinical testing and other approval requirements by the U.S. Food and Drug Administration, or 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.

In general, the FDA regulates the research, testing, manufacturing, safety, labeling, storage, record keeping, promotion, distribution and production of medical devices in the United States to ensure that medical products distributed domestically are safe and effective for their intended uses. In order for us to market medical devices for clinical use in the United States, we generally must first obtain clearance from the FDA pursuant to Section 510(k) of the FDC Act, which has occurred in the case of the EDAC® product. Clearance under Section 510(k) requires demonstration that a new device is substantially equivalent to another device with 510(k) clearance or is eligible for grandfather status. If we significantly modify our products after they receive FDA clearance, the FDA may require us to submit a separate 510(k) or premarket approval application, or PMA, for the modified product before we are permitted to market the products in the United States. In addition, if we develop products in the future that are not considered to be substantially equivalent to a device with 510(k) clearance or are eligible for grandfather status, we will be required to obtain FDA approval by submitting a PMA.

The FDA may not act favorably or quickly in its review of our 510(k) or PMA submissions, or we may encounter significant difficulties and costs in our efforts to obtain FDA clearance or approval, all of which could delay or preclude sale of new products for clinical use in the United States. Furthermore, the FDA may request additional data or require us to conduct further testing, or compile more data, including clinical data and clinical

studies, in support of a 510(k) submission. The FDA may also, instead of accepting a 510(k) submission, require us to submit a PMA, which is typically a much more complex and burdensome application than a 510(k). To support a PMA, the FDA would likely require that we conduct one or more clinical studies to demonstrate that the device is safe and effective. We may not be able to meet the requirements to obtain 510(k) clearance or PMA approval, or the FDA may not grant any necessary clearances or approvals. In addition, the FDA may place significant limitations upon the intended use of our products as a condition to a 510(k) clearance or PMA approval. Product applications can also be denied or withdrawn due to failure to comply with regulatory requirements or the occurrence of unforeseen problems following clearance or approval. Any delays or failure to obtain FDA clearance or approvals of new products we develop, any limitations imposed by the FDA on new product use, or the costs of obtaining FDA clearance or approvals could have a material adverse effect on our business, financial condition and results of operations.

Complying with FDA regulations is an expensive and time-consuming process. Our failure to comply fully with such regulations could subject us to enforcement actions.

Our commercially distributed medical device products will be subject to numerous post-market regulatory requirements, including the following:

- Quality System Regulation, or QSR, which requires manufacturers to follow elaborate design, testing, control, documentation and other quality assurance procedures during the manufacturing process;
- labeling regulations;
- the FDA's general prohibition against false or misleading statements in the labeling or promotion of products for unapproved or "off-label" uses;
- the Reports of Corrections and Removals regulation, which requires that manufacturers report to the FDA recalls and field corrective actions taken to reduce a risk to health or to remedy a violation of the FDC Act that may pose a risk to health; and
- the Medical Device Reporting regulation, which requires that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

We will also become subject to inspection and marketing surveillance by the FDA to determine our compliance with regulatory requirements. If the FDA finds 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 revenue.

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 QSRs. We are also required to comply with International Organization for Standardization, or ISO, quality system standards in order to produce products for sale in Europe. If we fail to continue to comply with Good Manufacturing Practice requirements or ISO standards, we may be required to cease all or part of our operations until we comply with these regulations. Obtaining and maintaining such compliance is difficult and costly. We cannot be certain that our facilities will be found to comply with Good Manufacturing Practice requirements or ISO standards in future inspections and audits by regulatory authorities.

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

To be able to market and sell our 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 receive regulatory approvals in any foreign country in which we plan to market our products. If we fail to obtain regulatory approval in any foreign country in which we plan to market our products, our ability to generate revenue will be harmed.

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. The CE mark is an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. In order to obtain the right to affix the CE mark to products, a manufacturer must obtain certification that its processes meet certain European quality standards.

We have not yet received permission to affix the CE mark to our medical products. We do not know whether we will be able to obtain permission to affix the CE mark for new or modified products. If we are unable to obtain permission to affix the CE mark to our products, we will not be able to sell our products in member countries of the European Union.

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 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 to incur potentially significant costs to comply with environmental regulations.

The European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment, known as the "WEEE Directive," requires producers of certain electrical and electronic equipment, including monitoring instruments, to be financially responsible for specified collection, recycling, treatment and disposal of past and present covered products placed on the market in the European Union. As a manufacturer of covered products, we may be required to register as a producer in some European Union countries, and we may incur some financial responsibility for the collection, recycling, treatment and disposal of both new product sold, and product already sold prior to the WEEE Directive's enforcement date, including the products of other manufacturers where these are replaced by our own products. European Union Directive 2002/95/EC on the Restriction of the use of Hazardous Substances in electrical and electronic equipment, known as the "RoHS Directive," restricts the use of certain hazardous substances, including mercury, lead and cadmium in specified covered products; however, the RoHS Directive currently exempts monitoring instruments from its requirements. If the European Commission were to remove this exemption in the future, we would be required to change our manufacturing processes and redesign products regulated under the RoHS Directive in order to be able to continue to offer them for sale within the European Union. For some products, substituting certain components containing regulated hazardous substances may be difficult, costly or result in production delays. We will continue to review the applicability and impact of both directives on the sale of our products within the European Union, and although we cannot currently estimate the extent of such impact, they are likely to result in additional costs and could require us to redesign or change how we manufacture our products, any of which could adversely affect our operating results. Failure to comply with the directives could result in the imposition of fines and penalties, inability to sell covered products in the European Union and loss of revenues.

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 are committed to complying with and, to our knowledge, are in compliance with, all governmental regulations. 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 this intellectual property 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. Furthermore, 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—such as the Trimetasphere® carbon nanomaterials products—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
- 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 certain of our products—including our Trimetasphere® carbon nanomaterials products—do not have foreign patent protection. 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, such as our litigation with Hansen, 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 and 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 development of 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 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. If third parties assert claims against us alleging that we infringe their patents or other intellectual property rights—including third parties that have asserted claims against businesses that we have acquired prior to our acquisition of these businesses—we could incur 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. 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 complex legal and factual questions for which important legal principles will be developed or may remain unresolved. In addition, it is not clear whether such patents will be subject to interpretations or legal doctrines that differ from conventional patent law principles. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our nanotechnology-related intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our nanotechnology-related patents or in third party patents.

In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on commercially reasonable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture, or distribution of our products and, therefore, could have a material adverse effect on our business, financial condition, and results of operations.

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

A substantial portion of our technology is licensed from academic institutions, corporations and government agencies. Under these licensing arrangements, a licensor may obtain rights over the technology, including the right to require us to grant a license to one or more third parties selected by the licensor or that we provide licensed technology or material to third parties for non-commercial research. The grant of a license for any of our core technologies to a third party could have a material and adverse effect on our business. In addition, some of our licensors retain certain rights under the licenses, including the right to grant additional licenses to a substantial portion of our core technology to third parties for noncommercial academic and research use. It is difficult to monitor and enforce such noncommercial 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 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 that 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 nonexclusive, 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 be successful or 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 whether such intellectual property was developed in the performance of a federal funding agreement or developed at private expense.

RISKS RELATING TO OUR COMMON STOCK

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 quotations for the price of 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 in such event, 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 and will continue to be affected by a number of factors, many of which we cannot control For example, since January 1, 2008, our

common stock has traded between a high of $8.49 per share and a low of $0.30 per share. Among the factors that could cause material fluctuations in the market price for our common stock include:

- 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 our competitors, of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- litigation, such as our litigation with Hansen described in this report;
- any major change in our board of directors or management, including in connection with our ongoing management transition;
- changes in governmental regulations or in the status of our regulatory approvals;
- announcements related to patents issued to us or our competitors;
- a lack of, limited or negative industry or security 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 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.

Carilion, Dr. Kent Murphy and certain other stockholders have rights to require us, subject to certain conditions, to file one or more registration statements providing for the sale of up to an aggregate of approximately 6.4 million shares of our common stock, which number includes approximately 1.3 million shares of common stock issuable to Carilion upon conversion of shares Series A Preferred Stock it currently holds, or to include their shares in registration statements that we may file for ourselves or other stockholders. Once we register the issuance of these shares, they can generally be freely sold in the public market.

Dr. Murphy currently owns approximately 2.8 million shares of our common stock. In connection with Dr. Murphy's resignation as our chief executive officer, he has agreed that, subject to certain conditions, he may only request the registration of up to 800,000 shares of common stock through December 31, 2011, and he will not make any open market sales of his common stock pursuant to the exemption from registration provided by Rule 144 under the Securities Act during this period. However, these restrictions expire at the end of 2011, after which time Dr. Murphy will once again have the contractual ability to cause us to register all remaining shares that he owns at that time and sell under Rule 144.

In addition, certain of our employees, including some of our executive officers, have entered into agreements with us that restrict their ability to sell shares of our common stock beyond specified amounts through December 31, 2010. These employees currently beneficially own approximately 5% of our outstanding common stock, including shares issuable upon exercise of stock options. We have the right to waive any of these sale restrictions for employees and management at our discretion, and in such instance, the shares would become freely tradable.

We cannot assure you that Carilion, Dr. Murphy or any of our other significant stockholders will not seek to sell their shares once the contractual restrictions on their ability to do so have lapsed, or at any other time that could have an adverse effect on the market price of our stock.

If our internal controls over financial reporting are 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 against the standards adopted by 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 or our independent registered public accounting firm may 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 by an independent registered public accounting firm or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls.

Our directors and executive officers collectively control approximately 50% of our outstanding common stock and if they choose to act together, they can significantly influence our management and operations in a manner that may be in their best interests and not in the best interests of other stockholders.

As of the date of this report, our directors and executive officers, together with their affiliates, collectively own an aggregate of approximately 50% of our outstanding common stock, determined on an as-converted basis. As a result, these stockholders, if they were to act together, will be able to significantly influence our management and affairs and all matters requiring stockholder approval, including the election of directors and approval of mergers or other significant corporate transactions. You and other stockholders will have minimal influence over these actions. The interests of this group of stockholders may not always coincide with our interests or the interests of other stockholders, and this group may act in a manner that advances their best interests and not necessarily those of other stockholders. This concentration of ownership may also have the effect of delaying or preventing a change in control of our company and might adversely affect the market price of our common stock.

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 corporation law that, in general, prohibit any business combination with a beneficial owner of 15% or more of our common stock for five years unless the holder's acquisition of our stock was approved in advance by our board of directors.

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.

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. 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.

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

(a) Unregistered Sales of Equity Securities during the Three-Month Period Ended September 30, 2010

Shares Issued Upon Exercise of Warrants

During the three months ended September 30, 2010, the Company issued 34,137 shares of common stock upon a cashless net exercise of warrants held by Hansen. The issuance of these shares was deemed to be exempt from registration under the Securities Act in reliance on Sections 3(a)(9) and 4(2) of that statute.

Common Stock Dividend Payable to Carilion

As described in the Company's Current Report on Form 8-K filed on January 15, 2010, the Company issued 1,321,514 shares of Series A Preferred Stock, par value $0.001 per share, to Carilion Clinic in January 2010. 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 the Company's 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 September 30, 2010, the Series A Preferred Stock issued to Carilion has accrued approximately $268,000 in dividends. The accrued dividend as of September 30, 2010 will be paid by the issuance of 57,046 shares of the Company's common stock, which the Company will issue subsequent to September 30, 2010. The shares of common stock will be issued under exemptions from registration pursuant to Sections 3(a) (9) and 4(2) of the Securities Act.

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

In 2006, we completed the initial public offering of 3,500,000 shares of our common stock at a price to the public of $6.00 per share and received net proceeds of approximately $17.9 million, after deducting underwriters' discounts and commissions and additional offering-related expenses.

We are using, or expect to use, the net proceeds of the offering principally to fund further development and expansion of our products and product candidates, in particular our nanomaterial and ultrasound-related medical product candidates, and for general working capital purposes. We may also use a portion of the net proceeds for the acquisition of, or investment in, companies, technologies, products or assets that complement our business. We have no present commitments or binding agreements to enter into any acquisitions or investments. Pending these uses, we intend to continue to invest the net proceeds of our initial public offering in short-term, investment-grade interest-bearing securities or guaranteed obligations of the U.S. government.

(c) Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

ITEM 3. ***DEFAULTS UPON SENIOR SECURITIES***

None.

ITEM 4. ***RESERVED***

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.

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: November 15, 2010

By: /S/ SCOTT A. GRAEFF

Scott A. Graeff
Interim Chief Financial Officer
(principal financial and accounting officer and duly authorized officer)

EXHIBIT INDEX

Exhibit Number	Description
10.1*	Senior Management Incentive Compensation Plan
10.2	Separation and Consulting Agreement dated as of August 10, 2010, by and between Luna Innovations Incorporated and Kent A. Murphy, Ph.D.
10.3	General Release Agreement dated August 10, 2010, by and between Kent A. Murphy, Ph.D., and Luna Innovations Incorporated.
10.4	Letter Agreement dated August 10, 2010, between Kent A. Murphy, Ph.D., and Luna Innovations Incorporated.
10.5*	Amendment No.3 to the Development Supply Agreement, dated as of September 2, 2010, by and between Luna Innovations Incorporated and Intuitive Surgical, Inc.
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

* Confidential treatment has been requested with respect to portions of this exhibit, indicated by asterisks, which have been filed separately with the Securities and Exchange Commission.

** 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.

Exhibit 10.1

*****Text Omitted and Filed Separately**
Confidential Treatment Requested
Under 17 C.F.R. §§ 200.80(b)(4) and 240.24b-2

Luna Senior Management Incentive Compensation Plan

I. Objectives

- Recruiting, incentive, motivation, reward and retention consistent with the strategic objectives of the company
- Establishing stability, re-commitment, clarity, equity
- Align motivation to achieve corporate tactical and strategic goals with incentives
- Provide a plan and a set of guidelines for incentive compensation for performance that may rise above the 2010 budget but be limited to overall amounts which do not adversely impact minimum liquidity needs or bank covenants

II. 2010 Incentive Plan Parameters:

The incentive compensation program is payable if corporate and individual target performance are achieved and the costs associated with the program do not impair the overall liquidity as represented in the budget and required to meet or exceed all financial performance based covenants to third parties.

Specifically the bonus plan:

- Must be self-funding by performance improvement over budget
- Payment cannot reduce cash below 2010 budget
- Improvement in cash above 2010 budget is available to fund bonuses
- Accrual cannot have adverse impact on meeting bank covenants

III. Definitions:

- Net cash: Book balance of cash as of December 31, 2010 less the outstanding balance, if any, of the company's revolving line of credit.

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

- Net current liquidity: Cash plus accounts receivable as of December 31, 2010, less the outstanding balance, if any, under the revolving line of credit and accounts payable as of that date.
- Adjusted EBITDA: Earnings before interest, taxes, depreciation, amortization, and expenses to be settled in equity issuances. Additionally, management will review at least quarterly with the Compensation Committee any significant and unplanned revenues or expenses for determination as to whether such amounts should reasonably be excluded from the calculation of Adjusted EBITDA in order to best reflect the measure of the company's performance against the objectives of the incentive compensation plan. To the extent practical, management will review such unplanned items with a value greater than $[***] with the Compensation Committee prior to the consummation of the related transaction(s).
- Quick ratio: As defined in the company's credit agreement with SVB: Cash plus accounts receivable minus current liabilities other than deferred revenue.

IV. Bonus Plan:

Net cash above $[***] at year end provides potential for funding incentive compensation plans. To the extent that net cash exceeds $[***], up to [***]% of this excess will be available to fund the senior management incentive compensation plan subject to the threshold criteria below.

- Thresholds:
  - Adjusted EBITDA for 2010, including amounts accrued with respect to the plan, must be greater than $[***].
  - Accrual of the expense associated with the plan cannot reduce net current liquidity below $[***].
  - Accrual of the plan cannot result in a breach of the adjusted EBITDA covenant in any quarter. If the plan is limited by the adjusted EBITDA covenant in any quarter, such shortfall can be made up on a cumulative basis in a subsequent quarter to the extent that it does not result in a breach of the covenant for that subsequent quarter.

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

- Accrual of the plan cannot result in a quick ratio less than [***].
- Funding under the program is capped at the earned payouts under the senior management incentive plan formula, Exhibit 1, based upon the individual's annual salary multiplied by their target incentive percentage.

Payment:

Amounts earned under the Plan will be processed for the next scheduled payroll following approval of the amounts by the Compensation Committee, such approval to be determined no later than the next scheduled meeting of the Compensation Committee following the receipt of earnings clearance from the company's independent auditor.

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

*****Text Omitted and Filed Separately**
Confidential Treatment Requested
Under 17 C.F.R. §§ 200.80(b)(4) and 240.24b-2

Exhibit 1

The participants in the 2010 Senior Management Incentive Plan are initially:

Title	Salary	Target Incentive %
Chief Executive Officer	$270,000	50%
Chief Financial Officer	$205,000	50%
Chief Commercialization Officer	$197,000	50%
Chief Technology Officer	$197,000	50%
[***]	$ [***]	[***]%
[***]	$ [***]	[***]%
[***]	$ [***]	[***]%
[***]	$ [***]	[***]%
[***]	$ [***]	[***]%

The Company may from time to time add participants to the 2010 Senior Management Incentive Plan at the discretion of the Compensation Committee.

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.2

LUNA INNOVATIONS INCORPORATED
SEPARATION AND CONSULTING AGREEMENT

THIS SEPARATION AND CONSULTING AGREEMENT (the "Agreement") is made and entered into as of the 10th day of August, 2010 (the "Effective Date"), by and between Luna Innovations Incorporated (the "Company"), and Kent A. Murphy, Ph.D. (the "Consultant") and provides as follows:

RECITALS

WHEREAS, the Consultant has been involved in the executive management of the business and affairs of the Company and possesses scientific and technical experience, knowledge, skills and expertise relating to the Company and its operations;

WHEREAS, the Consultant currently is employed as the Chief Executive Officer ("CEO") of the Company pursuant to his Luna Innovations Incorporated Employment Agreement ("Employment Agreement") dated July 14, 2006, as amended December 31, 2008 and March 31, 2009;

WHEREAS, the Consultant is resigning from his position as CEO of the Company as of the Effective Date;

WHEREAS, the Consultant and the Company have agreed to terminate the Consultant's Employment Agreement and any entitlement of Consultant to compensation or other benefits under the Employment Agreement as of the Effective Date and enter into this Agreement;

WHEREAS, the consulting services to be provided by the Consultant are deemed to be in the best interests of the Company; and

WHEREAS, the parties have mutually agreed upon the terms and conditions of consulting services to be provided by the Consultant to the Company as hereinafter set forth;

TERMS OF AGREEMENT

NOW, THEREFORE, for and in consideration of the premises and of the mutual promises and undertakings of the parties as hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties covenant and agree as follows:

1. **Resignation.** Consultant is resigning from his position as CEO of the Company as of the Effective Date.

2. **Termination of Employment Agreement.** The Consultant and the Company hereby terminate the Consultant's Employment Agreement and any entitlement of Consultant to compensation or other benefits under the Employment Agreement as of the Effective Date and enter into this Agreement.

3. **Accrued Vacation and Attorneys' Fees.** In connection with the negotiations of this Agreement, it has been understood that the Company would pay the Consultant's counsel's attorneys' fees. Therefore, the Company shall pay directly to the Consultant's counsel its attorneys' fees in an amount not to exceed seventy two thousand five hundred dollars ($72,500.00). In the event that such attorneys' fees are less than $72,500.00, the Company shall pay the difference to the Consultant as payment for accrued and unpaid vacation or paid-time off, subject to applicable withholding.

4. **COBRA Benefits.** The Company shall pay the group health continuation premiums for the Consultant and the Consultant's covered dependents for eighteen (18) months from the Effective Date to the extent the Consultant is eligible for and elects such continuation coverage under COBRA.

5. **Consulting Engagement and Retention.** The Company hereby engages and retains the services of the Consultant to provide consulting services as outlined in this Agreement. The Consultant accepts his engagement pursuant to the terms of this Agreement. The Consultant's consulting services pursuant to this Agreement shall commence upon the Effective Date.

6. **Consulting Term.** The term of this Agreement shall begin on the Effective Date and shall continue for eighteen (18) months thereafter (the "Term"), unless sooner terminated under the provisions of Section 11 hereof.

7. **Services To Be Provided By The Consultant.** The Consultant shall, on an as needed basis as determined by the Company, and upon the specific request of the CEO of the Company or the Company's Board of Directors (the "Board"), or such other officers as may be designated by the Board, perform the following consulting services ("Consulting Services"), not to exceed forty (40) hours per month:

   (a) provide counsel and assistance to the Company on scientific, technical and related matters;

   (b) provide any other services for which the Consultant may be reasonably expected to have the requisite scientific and technical knowledge and experience to assist the Company;

   (c) provide supervision as directed by the Company where a supervisor with a security clearance may be required; and

   (d) perform such other assignments and projects as may, from time to time, be reasonably assigned to him by the CEO of the Company or the Board.

8. **Consulting Compensation.** In exchange for the Company's access to the Consultant's time, talents, and services, the Company shall pay the Consultant twenty two thousand five hundred dollars ($22,500.00) for each month of the Term, payable on the last day of such month.

9. **Independent Contractor**.

   (a) It is understood and agreed by the parties that the Consultant is an independent contractor providing Consulting Services to the Company and that his position as an independent contractor does not entitle him to be considered an employee of the Company. As such, the Consultant is not entitled to obligate or bind the Company in any manner, without the express advance written authorization of the CEO of the Company or the Board to do so.

(b) The Consultant is not an employee of the Company and will not participate as an employee in any plan or program maintained by the Company for the benefit of its employees. The Consultant will be solely and entirely responsible for his acts and for the acts of his agents or employees during the term of this Agreement; provided, however, that nothing herein is intended to limit any insurance coverage, if any, that may be available to the Consultant under the Company's Director and Officer insurance policy.

(c) The Consultant acknowledges that he is not an employee for any purpose, including, among others, for purposes of the Fair Labor Standards Act, the Employee Retirement Income Security Act, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act and Income Tax Withholding, or for the purposes of any employee benefit plans or "fringe benefits" which may otherwise be offered by the Company to its employees. The Consultant shall be responsible for compliance with all laws and regulations with respect to his provision of services hereunder, and for all applicable withholding, self-employment and employment related taxes imposed by any taxing jurisdiction. Nothing contained in this Agreement shall be construed to create a joint venture, partnership or relationship other than an independent contractor relationship between the Company and the Consultant.

(d) The Consultant shall be permitted to obtain employment with, or provide services to, a third party during the Term, provided such employment or providing of services does not (i) interfere with the Consultant's obligations to the Company pursuant to this Agreement, or (ii) violate the covenants contained in Sections 12, 13, 14, 15 and/or 16 of this Agreement.

10. **Consulting Expenses.** Subject to the prior approval of the CEO or the Board, the Company shall reimburse the Consultant for all reasonable business expenses incurred by the Consultant in furtherance of the performance of his Consulting Services in accordance with the Company's regular reimbursement procedures and practices in effect from time to time.

11. **Termination of Consulting Agreement and Consulting Services.** This Agreement and the providing of Consulting Services by the Consultant under this Agreement may be terminated as follows:

(a) Termination. The Company may terminate the Consultant's services as a consultant hereunder at any time prior to the ending of the Term, for any reason, whether with or without cause.

(b) Termination During the Term. If the Company terminates the Consultant's services as a Consultant hereunder for any reason during the Term or upon the death or inability of the Consultant to perform the essential functions of his consulting position with or without reasonable accommodation for more than twelve consecutive weeks, the Consultant will remain entitled to be paid the monthly amount specified in Section 8 hereof for the remainder of the Term. Any such continued entitlement to be paid pursuant to Section 8 hereof is contingent on the consultant's execution of, and not revoking, the "General Release Agreement," which is attached hereto as Exhibit "B" and hereby incorporated by reference herein. The date of termination by the Company of the Consultant's services as a consultant hereunder shall be the date specified in a written notice of termination to the Consultant.

(c) Continuing Obligations of the Consultant After Termination. Any termination of this Agreement or the termination of the Consultant's providing of consulting services under this Agreement, for any reason, whether with or without cause, and whether voluntary or involuntary, will not affect Sections 12, 13, 14, 15 and/or 16 of this Agreement, which the parties agree will survive the termination of this Agreement.

12. **Company Confidential Information.**

(a) The Consultant hereby acknowledges that the Consultant's providing of Consulting Services to the Company places the Consultant in a

position of confidence and trust with respect to the business, operations, customers, prospects, and other personnel of the Company, and that the Consultant will be given access to trade secrets and confidential and proprietary business information of the Company. The Consultant acknowledges that the Company's trade secrets and confidential and proprietary business information include, but are not limited to, such matters as Company patents, trade secrets, systems, products and methodologies (whether or not patentable), formulas, processes, manufacturing procedures, manuals, reports, software and source code used in the Company's production and business processes, customers, identity of vendors, materials used in the Company's processes, pricing received from vendors, business opportunities and prospective business opportunities, costing and pricing procedures and information, scientific and technical information and processes, marketing and business strategies, equipment and methods used and preferred by the Company and/or its customers, and the amounts paid by such customers for the Company's products (all of the foregoing will be hereinafter referred to as "confidential information"). Additionally, and not by way of limitation, as used above, the term "trade secrets" shall be afforded the construction allowed by the common law, the Virginia Trade Secrets Act, and/or by federal law.

(b) The Consultant agrees that the Company's confidential information derives independent economic value because it is not generally known or readily ascertainable by other persons who could obtain economic value from the disclosure or use of such information.

(c) The Consultant acknowledges that the Company has invested considerable time and expense in developing and safeguarding its confidential information, and in developing and maintaining personal contacts and relationships with its customers and potential customers. The Consultant agrees that, in so doing, the Company has developed favorable goodwill with customers and with the business community. The Company wishes to safeguard its goodwill and confidential information.

(d) The Consultant pledges his best efforts and utmost diligence to protect the Company's confidential information. Unless required by the Company in connection with the Consultant's services for the Company or with the express written consent of the CEO of the Company or the Board, the Consultant agrees that he shall not, during the Term of this Agreement or afterwards, directly or indirectly, use or disclose for the Consultant's own benefit or for the benefit of another person or entity of any kind, or group of persons and/or entities, any of the Company's confidential information, whether or not the information is acquired, learned, attained, or developed by the Consultant alone or in conjunction with others. The Consultant makes the same pledge with regard to the confidential information of the Company's customers, contractors, or others with whom the Company has a business relationship.

(e) The Consultant also agrees that all notes, lists, records, drawings, memoranda, or other documents that are made or compiled by the Consultant or which are or were made available to the Consultant concerning any of the Company's business and/or confidential information shall be the exclusive property of the Company. The Consultant agrees to deliver such materials and information to the Company upon the termination of his providing of Consulting Services or at any other time at the Company's request. The Consultant understands that the unauthorized taking or disclosure of any of such information or materials could also result in civil and/or criminal liability.

(f) Any alleged breach by the Company of any other provision of this Agreement is not a defense to the enforceability of the covenants contained in this Section 12.

13. **Non-Solicitation.** The Consultant acknowledges that, while he was employed by the Company and during his providing of Consulting Services on behalf of the Company, the Consultant had and will have contact with and/or become aware of customers of the Company, and the representatives of those customers, their names and addresses, specific customer needs and requirements, and leads and references to prospective customers. The Consultant further acknowledges that loss of such customers would cause

the Company great and irreparable harm. For eighteen (18) months following the Effective Date, the Consultant shall not, on the Consultant's own behalf or on behalf of any other person or entity, solicit, initiate contact with or first call upon or attempt to solicit, initiate contact with or first call upon, any customer of the Company with whom the Consultant had business contact or business dealings or for which the Consultant had responsibilities or performed work on behalf of the Company during the Term of this Agreement and during the last twelve (12) months of the Consultant's employment by the Company, for the purpose of offering or providing products, services or technologies that are competitive with the products, services or technologies of the Company. Solely as it relates to government customers, including federal state and local governments, the term "customer" as used in this Section 13 means a specific procuring component or agency with whom the Company has, or has had, a procurement or development contract or grant or award agreement within the three (3) years prior to any action(s) by the Consultant which would be prohibited by this Section 13. The Consultant acknowledges that the covenants contained in this paragraph are reasonable and necessary to protect the Company's legitimate business interests. Any alleged breach by the Company of any other provision of this Agreement is not a defense to the enforceability of the covenants contained in this Section 13.

14. **No-Hire.** The Consultant agrees that the Company has invested substantial time and effort in assembling its present staff of personnel. Accordingly, the Consultant agrees that through December 31, 2012 ("Restrictive Period"), the Consultant shall not, directly or indirectly, on the Consultant's own behalf or on behalf of any other person or entity, recruit, hire or retain the services of, or attempt to recruit, hire or retain the services of, any Employee or Representative of the Company, or encourage, prompt, induce or solicit, or attempt to encourage, prompt, induce or solicit, any of the Company's Employees or Representatives to terminate their employment or relationship with the Company or become affiliated with or perform work for any business that is competitive with the business of the Company. For purposes of this Section 14, "Employee or Representative" shall mean any individual who is an employee or representative of the Company as of the Effective Date or who is an employee or representative of the Company at any time during the Restrictive Period, provided, however, that in the event any individual's employment is terminated by the Company in connection with a

general reduction in force of more than five (5) individuals at the same time, such individual shall not be included in the definition of "Employee or Representative" for purposes of this Section 14. In the event the Consultant has questions regarding whether any action by him would violate the restrictions of this Section 14, he shall have the ability to request in writing that the Company specifically consent to the Consultant's ability to engage in such actions or, in the event that the Company determines that any such action would be violative of this Section 14, the Company shall provide the Consultant a written answer within fifteen (15) business days. In the event that the Consultant receives a negative response to his request, he will given the opportunity to make the same request to the Board's Nominating and Governance Committee, which shall provide the Consultant a written answer within fifteen (15) business days. Any response from that Board Committee shall be final. The Consultant acknowledges that the covenants contained in this paragraph are reasonable and necessary to protect the Company's legitimate business interests. Any alleged breach by the Company of any other provision of this Agreement is not a defense to the enforceability of the covenants contained in this Section 14.

15. **Non-Competition.** The Consultant acknowledges that the Consultant's engaging in any business that is competitive with the business of the Company would cause the Company great and irreparable harm. During the Term of this Agreement, the Consultant shall faithfully devote the Consultant's best efforts to advance the business and interests of the Company. For eighteen (18) months from the Effective Date, the Consultant shall not, on his own behalf or on behalf of any other person or entity engaged in providing any products, services, or technologies competitive with the products, services or technologies of the Company, perform duties or provide products, services or technologies that are the same as or substantially similar to and that are competitive with those duties performed or products, services or technologies provided by the Consultant on behalf of the Company within any of the territories and markets to which the Consultant was assigned or in which the Consultant had responsibilities or performed work for the Company during the Term of this Agreement and during the last twelve (12) months of the Consultant's employment with the Company. In the event the Consultant has questions regarding whether a new opportunity is "competitive" with the Company's products and services, he shall have the ability to request in writing that the Company specifically

consent to the Consultant's ability to engage in such opportunity, or, in the event that the Company determines that the new opportunity is "competitive", the Company shall provide the Consultant a written explanation of such determination within fifteen (15) business days. The Consultant acknowledges that the covenants contained in this paragraph are reasonable and necessary to protect the Company's legitimate business interests. Any alleged breach by the Company of any other provision of this Agreement is not a defense to enforceability of the covenants contained in this Section 15.

16. **Ownership of Intellectual Property.** Any and all inventions, discoveries, improvements, or creations (collectively "intellectual property") that the Consultant has conceived or made or may conceive or make during the period of his employment with the Company or as a result of his providing of Consulting Services to the Company that in any way, directly or indirectly, are connected with or related to the Company and/or its business, shall be the sole and exclusive property of the Company. All works created by the Consultant under the Company's direction or in connection with the Company's business for which copyrights, trademarks or patents may be sought are "works made for hire" and will be the sole and exclusive property of the Company. Any and all copyrights, trademarks or patents to such works, whether actually sought and/or applied for or not, will belong to the Company, and the Consultant shall execute all documents that may be necessary to convey or assign any such rights that the Consultant may have in such intellectual property to the Company or that otherwise may be necessary to enable the Company to seek such protection for such intellectual property. To the extent any such works are not deemed to be "works made for hire," the Consultant hereby assigns all proprietary rights, including copyrights, trademarks and patents, in such works to the Company. The Consultant agrees to execute any documents and take any such other action requested by the Company to effect or perfect such assignment of proprietary rights to the Company.

17. **Court's Or Other Trier of Fact's Right To Modify Restrictions.** The parties have attempted to limit the Consultant's right to compete only to the extent necessary to protect the Company in its legitimate business interests and from unfair competition. If the scope or enforceability of this Agreement is in any way disputed at any time, the Company and the Consultant agree

that a court or other trier of fact may modify and enforce this Agreement to the extent it believes to be reasonable under the circumstances. Any such modification shall apply only to the applicable jurisdiction in which such modification has been made and shall not serve to alter or amend this Agreement in any other jurisdiction.

18. **Enforcement.** The Consultant acknowledges that, in the event of a breach or threatened breach by the Consultant of any of the covenants and promises contained in Sections 12, 13, 14, 15 and/or 16 of this Agreement, the Company will suffer irreparable injury for which there is no adequate remedy at law. The Consultant therefore agrees that the Company will be entitled to temporary, preliminary and permanent injunctive relief from the courts enjoining any such breach or threatened breach, without the necessity of posting any type of bond. The Company shall have the right to seek a remedy at law as well as, or in lieu of, equitable relief in the event of any such breach. If it is determined that the Consultant has violated any of his obligations under Sections 12, 13, 14, 15 and/or 16 of this Agreement, then the period applicable to each obligation that the Consultant has been determined to have violated automatically will be extended by a period of time equal in length to the period during which such violation(s) occurred. If it is determined that the Consultant has breached Sections 12, 13, 14, 15 and/or 16 of this Agreement, in addition to all other remedies available at law or in equity, the Consultant shall pay all of the Company's costs and expenses resulting from such breach and/or incurred in enforcing this Agreement, including legal fees.

19. **Severability.** If any provision in this Agreement is determined to be in violation of any law, rule or regulation or otherwise unenforceable, such determination will not affect the validity of any other provision of this Agreement, which will remain in full force and effect. Each section, provision, paragraph and subparagraph of this Agreement is severable from every other section, provision, paragraph and subparagraph and constitutes a separate and distinct covenant. Any such determination shall apply only to the jurisdiction in which such a determination has been made and shall not serve to alter or amend this Agreement in any other jurisdiction.

20. **Governing Law; Venue.** The parties agree that this Agreement is entered into in the Commonwealth of Virginia and that the rights and obligations of

all parties to this Agreement shall be governed by the laws of the Commonwealth of Virginia, without regard to its choice of law provisions. The Company and the Consultant agree that the exclusive venue for any lawsuit arising out of or relating in any way to breaches of Sections 12, 13, 14, 15 and/or 16 of this Agreement, whether for a temporary restraining order, injunction, declaratory judgment, specific performance, damages or other relief, shall be in the U.S. District Court for the Western District of Virginia, Roanoke Division, or in state court in Roanoke City, Virginia, and the Consultant waives any objections to jurisdiction and venue which the Consultant otherwise may have as to any such lawsuit.

21. **Notices.** All notices, requests, demands and other communications called for under this Agreement shall be in writing and shall be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well established commercial overnight service, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

Luna Innovations Incorporated
1 Riverside Circle, Suite 400
Roanoke, Virginia 24016
Attn: General Counsel

If to the Consultant:

At the last residential address known by the Company.

22. **Arbitration.** To ensure the rapid and economical resolution of disputes that may arise in connection with the Consultant's providing of consulting services to the Company, the Consultant and the Company agree that any and all disputes, claims, or causes of action, in law or equity, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, the Consultant's providing of consulting services, or the termination of the Consultant's providing of consulting services, shall be

resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in Roanoke City, Virginia, conducted by JAMS, the Resolution Experts ("JAMS") or its successor, under the then applicable rules of JAMS. The Consultant and the Company acknowledge that by agreeing to this arbitration procedure, each party waives the right to resolve any such dispute through a trial by jury or judge or administrative proceeding. The arbitrator shall: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (b) issue a written arbitration decision including the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall be authorized to award any or all remedies that the Consultant or the Company would be entitled to seek in a court of law. Nothing in this Section 22 is intended to prevent the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Notwithstanding the other provisions of this Section 22, the Consultant and the Company agree that each has the right to resolve any issue or dispute arising under Sections 12, 13, 14, 15 and/or 16 of this Agreement by court action instead of arbitration.

23. **Non-Disparagement.** The Consultant agrees that he has not and will not disparage in any way the Company, and further agrees to refrain from any defamation, libel or slander of the Company, any statements or letters regarding his resignation from any Board position with the Company not previously approved by the Company, and any tortious interference with the contracts, relationships and prospective economic advantage of the Company. The Company agrees that its executive officers will not disparage the Consultant and will refrain from any defamation, libel or slander of the Consultant. The Consultant understands and agrees that the Company is unable to guarantee compliance with any non-disparagement provision by all employees of the Company, but the Company agrees to take reasonable steps to ensure that its executive officers have been informed of the need to comply with this non-disparagement provision. For purposes of this Section 23, the term "executive officers" shall be defined as set forth in Section 16 of the Securities and Exchange Act of 1934, as amended.

24. **Survival.** The Consultant's obligations hereunder are continuing obligations and will survive both the execution of this Agreement and the termination of his Consulting Services provided to the Company.

25. **Assignability.** This Agreement may be assigned by the Company without prior notice to the Consultant and without payment of any additional consideration to the Consultant. The Consultant further understands and agrees that the services and obligations of the Consultant hereunder are of a personal nature and may not be assigned in whole or in part by the Consultant.

26. **Entire Agreement.** This Agreement and that certain letter agreement between the Company and the Consultant dated as of the date of this Agreement constitute the entire agreement between the parties with respect to the subject matter hereof. It supersedes any prior agreement or understanding between them, including, but not limited to, the Consultant's Employment Agreement, and it may not be modified or amended except by a writing executed by both parties. No subsequent writing shall modify or amend this Agreement unless such writing specifically indicates an intention specifically to modify or amend the terms of this Agreement. No waiver of any provision of this Agreement shall be valid unless in writing signed by the person or party to be charged. The CEO of the Company or the Board are the only person or body with authority to act on behalf of the Company with respect to such matters under this Agreement.

27. **Acknowledgment.** The Consultant acknowledges that he fully understands all the terms, conditions, and provisions set forth in this Agreement, particularly including, but not limited to, the Company Confidential Information, Non-Solicitation, No-Hire, Non-Competition and Ownership of Intellectual Property provisions contained herein. The Consultant acknowledges that he has been given an opportunity to review and consider this Agreement before signing it, that this Agreement is fair and reasonable, that the Consultant has received a copy of this Agreement for his files, and that the Consultant intends to abide by this Agreement.

28. **General Release Agreement.** In consideration of the foregoing, the Consultant agrees to execute the "General Release Agreement," which is attached hereto as Exhibit "A" and which is hereby incorporated by reference herein.

29. **Counterparts and Facsimile Signatures.** This Agreement may be executed by facsimile transmission and in several counterparts, and all counterparts so executed shall constitute one agreement binding on all parties, notwithstanding the fact that all the parties have not signed the original or the same counterpart. Any counterpart signed by the party against whom enforcement of this Agreement is sought shall be admissible into evidence as an original of this Agreement to prove its contents.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year above written.

LUNA INNOVATIONS INCORPORATED	**CONSULTANT**
By: /s/ Dale Messick	/s/ Kent A. Murphy, Ph.D.
Name: Dale Messick	Kent A. Murphy, Ph.D.
Title: Interim President and Chief Operating Officer	

EXHIBIT “A”

GENERAL RELEASE AGREEMENT

THIS GENERAL RELEASE AGREEMENT (the “Agreement”) is executed by and between Kent A. Murphy, Ph.D. (the “Consultant”) and Luna Innovations Incorporated (the “Company”) (as used herein, the “Company” includes its parent, subsidiaries, successors, affiliates and assigns, and all of its present or former employees, officers, agents, and directors). The Consultant and the Company agree to the following:

1. The Consultant and the Company desire to compromise and resolve any and all claims or potential claims that the Consultant may have against the Company up to and including the Effective Date.

2. For and in consideration of the covenants contained herein and contingent upon the Consultant’s compliance therewith, the Company and the Consultant agree to enter into a certain Luna Innovations Incorporated Separation and Consulting Agreement dated August 10, 2010, to which this Agreement is attached as Exhibit A.

3. In return for the consideration and promises contained in paragraph 2 of this Agreement and for other consideration, the receipt and sufficiency of which are hereby acknowledged, as set forth in the aforementioned Luna Innovations Incorporated Separation and Consulting Agreement, the Consultant shall and does hereby RELEASE and FOREVER DISCHARGE the Company, its parents, subsidiaries, affiliates, divisions, successors and assigns, and all of the Company’s present or former employees, officers, servants, agents, members and directors from any and all claims, demands, actions or causes of action on account of, arising out of or in any way connected in any way with (a) the Consultant’s employment, (b) the Consultant’s Luna Innovations Incorporated Employment Agreement, dated July 14, 2006, as amended December 31, 2008 and March 31, 2009 (“Employment Agreement”), or the termination thereof; (c) the ending of or modification of the Consultant’s employment with the Company, (d) all matters alleged or which could have been alleged in a complaint against the Company, (e) any and all injuries, losses or damages to the Consultant, including any claims for attorney’s fees, (f) any and all claims relating to the conduct of any employee,

officer, director, or agent of the Company, and (g) any and all other matters, transactions or things occurring prior to the date hereof, including any and all possible claims, known or unknown, which could have been asserted against the Company or the Company's employees, agents, officers, members or directors.

4. The release contained in paragraph 3 of this Agreement includes, but is not limited to, the release of any claims arising under federal, state or local laws relating to the Consultant's employment with the Company, including any claims based on the Consultant's age, citizenship, disability, handicap, national origin, race, religion, veteran's status, gender, or any other protected classification, any claims arising out of any legal restrictions on an employer's right to separate or terminate its employees and any claims for salary, leave or other benefits, personal injury, compensatory or punitive damages. This release includes, but is not limited to, any claims the Consultant may have under the Civil Rights Acts of 1866, 1964 and 1991, as amended, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Uniformed Services Employment and Reemployment Rights Act, the Rehabilitation Act of 1973, the Older Workers Benefit Protection Act, the Fair Labor Standards Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act, and any other federal, state or local statute, rule, regulation or common law cause of action. Further, the Consultant intends that this release shall discharge the Company to the maximum extent permitted by law. The Consultant acknowledges that he has been paid all sums and received all leave and other benefits to which he may be entitled under applicable law or under his Employment Agreement. The Consultant also warrants and represents that he is the owner of the matters released by him herein and he has not transferred or assigned all or any part thereof.

5. In return for the consideration and promises contained in paragraph 2 of this Agreement and for other consideration, the receipt and sufficiency of which are hereby acknowledged, the Company releases, acquits and forever discharges the Consultant of and from any and all claims, actions, causes of action, judgments, grievances, obligations, rights, demands, debts, damages, sums of money, attorney's fees, costs, losses, liabilities or accountings of whatever nature, whether known or unknown, disclosed or undisclosed, asserted or unasserted, in law or equity, contract, tort or common law or otherwise, including, without limitation, any claims arising from violations of any statute, constitutional provision, executive order, law or ordinance, and any claims arising out of any relationship between the Company and the Consultant, predating the execution of this Agreement.

6. Each of the covenants herein contained shall be binding upon and shall inure to the benefit of the heirs, executors, administrators, assigns and successors in interest of each of the Parties.

7. This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Virginia, without regard to its choice of law provisions.

8. Should any provision of this Agreement be declared or determined by any court or other reviewing forum to be illegal or invalid, the legality and validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term, or provision shall be severed and deemed not to be a part of this Agreement.

9. The Consultant acknowledges that pursuant to this Agreement he is receiving value beyond and in addition to anything to which he already is entitled. The Consultant also represents that he has been advised that he should consult with an attorney prior to signing this Agreement. The Consultant acknowledges that he has been given at least twenty-one (21) days within which to consider the terms of this Agreement. The Consultant also understands that he may revoke this Agreement within seven (7) days of his signing of the Agreement and that the Agreement shall not become effective or enforceable until the seven (7) day revocation period has expired. Any such revocation must be in writing, addressed to the undersigned representative of the Company, and must be received by the Company within the seven (7) day revocation period.

10. The Consultant represents that he understands all of the provisions herein, and that he is entering into this Agreement voluntarily. The Consultant further represents and acknowledges that in executing this Agreement he does not rely, and has not relied, upon any representation or statement made by the Company or by any of the Company' employees, officers, agents, members, directors or attorneys with regard to the subject matter, basis or effect of this Agreement or otherwise.

11. This Agreement may be executed by facsimile transmission and in several counterparts, and all counterparts so executed shall constitute one agreement binding on all parties, notwithstanding the fact that all the parties have not signed the original or the same counterpart. Any counterpart signed by the party against whom enforcement of this Agreement is sought shall be admissible into evidence as an original of this Agreement to prove its contents.

[SIGNATURE PAGE FOLLOWS]

PLEASE READ CAREFULLY.
THIS SETTLEMENT AND RELEASE AGREEMENT INCLUDES
A COMPLETE RELEASE OF ALL KNOWN AND UNKNOWN CLAIMS.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date(s) set forth below:

Kent A. Murphy, Ph.D.	Date
LUNA INNOVATIONS INCORPORATED	
By Its	Date

EXHIBIT “B”

GENERAL RELEASE AGREEMENT

THIS GENERAL RELEASE AGREEMENT (the “Agreement”) is executed by and between Kent A. Murphy, Ph.D. (the “Consultant”) and Luna Innovations Incorporated (the “Company”) (as used herein, the “Company” includes its parent, subsidiaries, successors, affiliates and assigns, and all of its present or former employees, officers, agents, and directors). The Consultant and the Company agree to the following:

1. The Consultant and the Company desire to compromise and resolve any and all claims or potential claims that the Consultant may have against the Company up to and including the Effective Date.

2. For and in consideration of the covenants contained herein and contingent upon the Consultant’s compliance therewith, the Consultant executes this General Release Agreement pursuant to Section 11 of the Luna Innovations Incorporated Separation and Consulting Agreement dated August 10, 2010 (“Consulting Agreement”), to which this Agreement is attached as Exhibit B, which is required in order for him to continue receiving payments pursuant to Section 8 of the Consulting Agreement.

3. In return for the consideration and promises contained in paragraph 2 of this Agreement and for other consideration, the receipt and sufficiency of which are hereby acknowledged, as set forth in the aforementioned Luna Innovations Incorporated Separation and Consulting Agreement, the Consultant shall and does hereby RELEASE and FOREVER DISCHARGE the Company, its parents, subsidiaries, affiliates, divisions, successors and assigns, and all of the Company’s present or former employees, officers, servants, agents, members and directors from any and all claims, demands, actions or causes of action on account of, arising out of or in any way connected in any way with (a) the Consultant’s retention or service as a consultant pursuant to the Consulting Agreement, (b) the termination of the Consultant’s services under the Consulting Agreement, (c) all matters alleged or which could have been alleged in a complaint against the Company, (d) any and all injuries, losses or damages to the Consultant, including any claims for attorney’s fees, (e) any and all claims relating to the conduct of any

employee, officer, director, or agent of the Company, and (f) any and all matters, transactions or things occurring prior to the date hereof, including any and all possible claims, known or unknown, which could have been asserted against the Company or the Company's employees, agents, officers, members or directors.

4. The release contained in paragraph 3 of this Agreement includes, but is not limited to, the release of any claims arising under federal, state or local laws relating to the Consultant's employment with the Company or to his providing of consulting services to the Company, including any claims based on the Consultant's age, citizenship, disability, handicap, national origin, race, religion, veteran's status, gender, or any other protected classification, any claims arising out of any legal restrictions on the Company's right to separate or terminate its consultants and/or employees and any claims for pay, salary, leave or other benefits, personal injury, compensatory or punitive damages. This release includes, but is not limited to, any claims the Consultant may have under the Civil Rights Acts of 1866, 1964 and 1991, as amended, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Uniformed Services Employment and Reemployment Rights Act, the Rehabilitation Act of 1973, the Older Workers Benefit Protection Act, the Fair Labor Standards Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act, and any other federal, state or local statute, rule, regulation or common law cause of action. Further, the Consultant intends that this release shall discharge the Company to the maximum extent permitted by law. The Consultant also warrants and represents that he is the owner of the matters released by him herein and he has not transferred or assigned all or any part thereof.

5. The Consultant agrees that he has not and will not disparage in any way the Company, and further agrees to refrain from any defamation, libel or slander of the Company, any statements or letters regarding his resignation from any position with the Company not previously approved by the Company, and any tortious interference with the contracts, relationships and prospective economic advantage of the Company.

6. The Parties agree that this Agreement shall not be construed to be an admission of any sort on the part of any of the Parties hereto.

7. Each of the covenants herein contained shall be binding upon and shall inure to the benefit of the heirs, executors, administrators, assigns and successors in interest of each of the Parties.

8. This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Virginia, without regard to its choice of law provisions.

9. Should any provision of this Agreement be declared or determined by any court or other reviewing forum to be illegal or invalid, the legality and validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term, or provision shall be severed and deemed not to be a part of this Agreement.

10. The Consultant acknowledges that pursuant to this Agreement he is receiving value beyond and in addition to anything to which he already is entitled. The Consultant also represents that he has been advised that he should consult with an attorney prior to signing this Agreement. The Consultant acknowledges that he has been given at least twenty-one (21) days within which to consider the terms of this Agreement. The Consultant also understands that he may revoke this Agreement within seven (7) days of his signing of the Agreement and that the Agreement shall not become effective or enforceable until the seven (7) day revocation period has expired. Any such revocation must be in writing, addressed to the undersigned representative of the Company, and must be received by the Company within the seven (7) day revocation period.

11. The Consultant represents that he understands all of the provisions herein, and that he is entering into this Agreement voluntarily. The Consultant further represents and acknowledges that in executing this Agreement he does not rely, and has not relied, upon any representation or statement made by the Company or by any of the Company' employees, officers, agents, members, directors or attorneys with regard to the subject matter, basis or effect of this Agreement or otherwise.

12. This Agreement may be executed by facsimile transmission and in several counterparts, and all counterparts so executed shall constitute one agreement binding on all parties, notwithstanding the fact that all the parties have not signed

the original or the same counterpart. Any counterpart signed by the party against whom enforcement of this Agreement is sought shall be admissible into evidence as an original of this Agreement to prove its contents.

PLEASE READ CAREFULLY.
THIS SETTLEMENT AND RELEASE AGREEMENT INCLUDES
A COMPLETE RELEASE OF ALL KNOWN AND UNKNOWN CLAIMS.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date(s) set forth below:

Kent A. Murphy, Ph.D.	Date
LUNA INNOVATIONS INCORPORATED	
By Its	Date

Exhibit 10.3

GENERAL RELEASE AGREEMENT

THIS GENERAL RELEASE AGREEMENT (the "Agreement") is executed by and between Kent A. Murphy, Ph.D. (the "Consultant") and Luna Innovations Incorporated (the "Company") (as used herein, the "Company" includes its parent, subsidiaries, successors, affiliates and assigns, and all of its present or former employees, officers, agents, and directors). The Consultant and the Company agree to the following:

1. The Consultant and the Company desire to compromise and resolve any and all claims or potential claims that the Consultant may have against the Company up to and including the Effective Date.

2. For and in consideration of the covenants contained herein and contingent upon the Consultant's compliance therewith, the Company and the Consultant agree to enter into a certain Luna Innovations Incorporated Separation and Consulting Agreement dated August 10, 2010, to which this Agreement is attached as Exhibit A.

3. In return for the consideration and promises contained in paragraph 2 of this Agreement and for other consideration, the receipt and sufficiency of which are hereby acknowledged, as set forth in the aforementioned Luna Innovations Incorporated Separation and Consulting Agreement, the Consultant shall and does hereby RELEASE and FOREVER DISCHARGE the Company, its parents, subsidiaries, affiliates, divisions, successors and assigns, and all of the Company's present or former employees, officers, servants, agents, members and directors from any and all claims, demands, actions or causes of action on account of, arising out of or in any way connected in any way with (a) the Consultant's employment, (b) the Consultant's Luna Innovations Incorporated Employment Agreement, dated July 14, 2006, as amended December 31, 2008 and March 31, 2009 ("Employment Agreement"), or the termination thereof; (c) the ending of or modification of the Consultant's employment with the Company, (d) all matters alleged or which could have been alleged in a complaint against the Company, (e) any and all injuries, losses or damages to the Consultant, including any claims for attorney's fees, (f) any and all claims relating to the conduct of any employee, officer, director, or agent of the Company, and (g) any and all other matters, transactions or things occurring prior to the date hereof, including any and all possible claims, known or unknown, which could have been asserted against the Company or the Company's employees, agents, officers, members or directors.

4. The release contained in paragraph 3 of this Agreement includes, but is not limited to, the release of any claims arising under federal, state or local laws relating to the Consultant's employment with the Company, including any claims based on the Consultant's age, citizenship, disability, handicap, national origin, race, religion, veteran's status, gender, or any other protected classification, any claims arising out of any legal restrictions on an employer's right to separate or terminate its employees and any claims for salary, leave or other benefits, personal injury, compensatory or punitive damages. This release includes, but is not limited to, any claims the Consultant may have under the Civil Rights Acts of 1866, 1964 and 1991, as amended, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Uniformed Services Employment and Reemployment Rights Act, the Rehabilitation Act of 1973, the Older Workers Benefit Protection Act, the Fair Labor Standards Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act, and any other federal, state or local statute, rule, regulation or common law cause of action. Further, the Consultant intends that this release shall discharge the Company to the maximum extent permitted by law. The Consultant acknowledges that he has been paid all sums and received all leave and other benefits to which he may be entitled under applicable law or under his Employment Agreement. The Consultant also warrants and represents that he is the owner of the matters released by him herein and he has not transferred or assigned all or any part thereof.

5. In return for the consideration and promises contained in paragraph 2 of this Agreement and for other consideration, the receipt and sufficiency of which are hereby acknowledged, the Company releases, acquits and forever discharges the Consultant of and from any and all claims, actions, causes of action, judgments, grievances, obligations, rights, demands, debts, damages, sums of money, attorney's fees, costs, losses, liabilities or accountings of whatever nature, whether known or unknown, disclosed or undisclosed, asserted or unasserted, in law or equity, contract, tort or common law or otherwise, including, without limitation, any claims arising from violations of any statute, constitutional provision, executive order, law or ordinance, and any claims arising out of any relationship between the Company and the Consultant, predating the execution of this Agreement.

6. Each of the covenants herein contained shall be binding upon and shall inure to the benefit of the heirs, executors, administrators, assigns and successors in interest of each of the Parties.

7. This Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Virginia, without regard to its choice of law provisions.

8. Should any provision of this Agreement be declared or determined by any court or other reviewing forum to be illegal or invalid, the legality and validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term, or provision shall be severed and deemed not to be a part of this Agreement.

9. The Consultant acknowledges that pursuant to this Agreement he is receiving value beyond and in addition to anything to which he already is entitled. The Consultant also represents that he has been advised that he should consult with an attorney prior to signing this Agreement. The Consultant acknowledges that he has been given at least twenty-one (21) days within which to consider the terms of this Agreement. The Consultant also understands that he may revoke this Agreement within seven (7) days of his signing of the Agreement and that the Agreement shall not become effective or enforceable until the seven (7) day revocation period has expired. Any such revocation must be in writing, addressed to the undersigned representative of the Company, and must be received by the Company within the seven (7) day revocation period.

10. The Consultant represents that he understands all of the provisions herein, and that he is entering into this Agreement voluntarily. The Consultant further represents and acknowledges that in executing this Agreement he does not rely, and has not relied, upon any representation or statement made by the Company or by any of the Company' employees, officers, agents, members, directors or attorneys with regard to the subject matter, basis or effect of this Agreement or otherwise.

11. This Agreement may be executed by facsimile transmission and in several counterparts, and all counterparts so executed shall constitute one agreement binding on all parties, notwithstanding the fact that all the parties have not signed the original or the same counterpart. Any counterpart signed by the party against whom enforcement of this Agreement is sought shall be admissible into evidence as an original of this Agreement to prove its contents.

[SIGNATURE PAGE FOLLOWS]

PLEASE READ CAREFULLY.
THIS SETTLEMENT AND RELEASE AGREEMENT INCLUDES
A COMPLETE RELEASE OF ALL KNOWN AND UNKNOWN CLAIMS.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date(s) set forth below:

/s/ Kent A. Murphy, Ph.D. — August 10, 2010
Kent A. Murphy, Ph.D. — Date

LUNA INNOVATIONS INCORPORATED

/s/ Dale Messick — August 10, 2010
By Dale Messick — Date
Its Interim President and Chief Operating Officer

Exhibit 10.4

August 10, 2010

Dr. Kent A. Murphy, Ph.D.
c/o Luna Innovations Incorporated
1 Riverside Circle, Suite 400
Roanoke, VA 24016

Dear Kent:

Reference is made to that certain Amended and Restated Investor Rights Agreement, dated as of January 13, 2010 (the "***Rights Agreement***"), by and among Luna Innovations Incorporated, a Delaware corporation (the "***Company***"), Carilion Clinic and certain other stockholders of the Company, including you. The purpose of this side letter agreement (this "***Letter Agreement***") is to confirm our mutual agreement and understanding with respect to your registration rights under the Rights Agreement following the cessation of your role as the Chief Executive Officer of the Company. Specifically, the Company and you (hereinafter, "***Dr. Murphy***") agree as follows:

1. All capitalized terms not defined in this Letter Agreement shall have the respective meanings ascribed to them in the Rights Agreement.

2. This Letter Agreement is effective as of the date hereof.

3. Beginning the date hereof, and through the period ending at the close of business on December 31, 2011 (the "***Restricted Period***"), Dr. Murphy hereby agrees that he shall not (a) make any permitted transfers of Registrable Securities in accordance with Rule 144 under the Securities Act as otherwise permitted under Section 2.8(b) of the Rights Agreement, (b) exercise any of his rights as an "Initiating Holder" under Section 2.1 of the Rights Agreement or (c) exercise any of his rights as a "Holder" under Section 2.1 or 2.3 of the Rights Agreement; provided, however, that Dr. Murphy may request one Form S-3 registration pursuant to, and in accordance with, Section 2.3 and other relevant provisions of the Rights Agreement during the Restricted Period for the registration of up to 800,000 shares of Common Stock (the "***Eligible Shares***") then held by Dr. Murphy (such registration the "***Special Registration***"). For the avoidance of doubt, the parties acknowledge and agree that a Special Registration may include a "shelf" registration on Form S-3 relating to the offer and sale of all or any portion of the Eligible Shares from time to time pursuant to Rule 415 under the Securities Act.

4. If Dr. Murphy requests the Special Registration, Dr. Murphy may not transfer any Registrable Securities pursuant to the registration statement (the "***Special Registration Statement***") filed in connection with the Special Registration if, in the Company's good faith and reasonable judgment, such disposition by Dr. Murphy would be reasonably likely to jeopardize the Company's eligibility to receive award funding under the U.S. Small Business Administration's Small Business Innovation Research (SBIR) program, as set forth in 13 C.F.R. 121 as in effect from time to time; provided, however, that this limitation shall cease to apply if the Company ceases to be eligible to receive award funding under the SBIR program for any reason other than as a result of actions taken by Dr. Murphy. The plan of distribution section of the Special Registration Statement shall describe the limitations on transfer set forth in this paragraph 4.

5. During the Restricted Period, if Dr. Murphy desires or proposes to make any non-registered sale, assignment, transfer or other disposition to any natural person who is a U.S. citizen of all or any portion of his Restricted Securities, or any beneficial interest therein (e.g., pursuant to Section 2.8(a)(ii) of the Rights Agreement), the Company hereby agrees to (a) use its commercially reasonable efforts to cooperate in providing information reasonably requested by the proposed transferee in connection with his or her due diligence investigation of the Company and (b) not unreasonably object to the proposed transfer; provided, however, that if the Company shall cease to be eligible to receive award funding under the SBIR program for any reason other than as a result of actions taken by Dr. Murphy, the Company's obligations under this paragraph 5 shall extend to any other transferee the proposed transfer to whom would be permissible under Section 2.8(a)(ii) of the Rights Agreement, so long as Dr. Murphy has complied with the provisions of that section.

6. Notwithstanding anything in the Rights Agreement or herein, Dr. Murphy hereby agrees that he will not, without the consent of the Company, take any action intended or reasonably likely to cause any Registrable Securities to be transferred to (X) any current or potential competitor of the Company or (Y) any party Dr. Murphy actually knows is intending to effect a Change of Control of the Company.

7. The parties hereto acknowledge their mutual understanding that Section 3.14 of the Rights Agreement is not intended to permit the Company to alter the contractual rights of Dr. Murphy under the Rights Agreement, as modified by this Letter Agreement, by amendment of the Company's Bylaws or its Amended and Restated Certificate of Incorporation. Without limiting the foregoing sentence, Dr. Murphy and the Company agree to act in good faith not to circumvent or otherwise frustrate the purpose and intent of this Letter Agreement.

8. Other than as set forth in this Letter Agreement, all of the terms and conditions of the Rights Agreement are and shall continue in full force and effect. This Letter Agreement and the Rights Agreement collectively constitute the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede any prior understanding, oral or written, between or among the parties (including the Second Amended and Restated Stock Sale Restriction Agreement dated as of February 27, 2008 by and between the Company and Dr. Murphy) with respect thereto. To the extent there is a conflict between the terms of this Letter Agreement and the terms of the Rights Agreement, this Letter Agreement shall control.

9. Each party hereto agrees to execute and deliver, by the proper exercise of its entity or individual powers, all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Letter Agreement.

10. This Letter Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

11. This Letter Agreement may be modified or amended only by a writing signed by each party hereto and may be waived only in a writing signed by the party or parties making such waiver.

12. This Letter Agreement shall be governed by and construed in accordance with the internal, substantive laws of the Commonwealth of Virginia, without regard to the conflicts of laws principles thereof.

If the foregoing accurately reflects our agreement with respect to the matters addressed above, please so indicate by signing below.

Sincerely,

LUNA INNOVATIONS INCORPORATED

By: /s/ Dale Messick
Name: Dale Messick
Title: Interim President and Chief Operating Officer

/s/ Kent A. Murphy, Ph.D.
KENT A. MURPHY, PH.D

[Counterpart Signature Page to Letter Agreement]

Exhibit 10.5

*****Text Omitted and Filed Separately**
Confidential Treatment Requested
Under 17 C.F.R. §§ 200.80(b)(4) and 240.24b-2

AMENDMENT No. 3
to the
Intuitive-Luna Development Supply Agreement dated June 11, 2007 ("Original Agreement")
between
INTUITIVE SURGICAL, INC. ("Intuitive")
and
LUNA INNOVATIONS INCORPORATED ("Luna")

This Amendment No. 3 is entered into by and between Intuitive and Luna on September 2, 2010 ("Amendment Date").

BACKGROUND

A. Intuitive and Luna agreed to amend the Original Agreement by Amendment No. X dated May 20, 2008 to replace Exhibit 2.1 of the Original Agreement.

B. As part of settlement of certain litigation between Luna and Hansen Medical, Inc., Intuitive and Luna agreed to amend the Agreement by Amendment No. 1 dated January 12, 2010.

C. Intuitive and Luna agreed to further amend the Agreement by Amendment No. 2 dated April 20, 2010, in regard to development work to be performed in 2010.

D. The Original Agreement as amended by Amendments No. X, 1, and 2 shall be referred to as the "Agreement".

E. Luna [***] upon the [***] in [***]. The parties now wish to amend the Agreement further in respect of the [***] for the [***] and the dollar amount of the [***] requested for [***]. Because the [***] upon the [***], however, the [***] must also be amended for this purpose. By this Amendment No. 3, the dollar amount of [***] requested by Intuitive for [***] is [***] from $[***] to $[***], which the parties acknowledge [***] for Luna to [***] to [***] the [***] in [***].

Intuitive and Luna agree to amend the Agreement as follows:

1. Terms not defined in this Amendment No. 3 shall have the meaning assigned to them in the Agreement.

2. Milestones and Luna Product Specifications (Exhibit 2.1) to the Agreement are hereby deleted in their entirety and replaced by new Milestones and Luna Product Specifications (Exhibit 2.1) attached to this Amendment No. 3.

3. In [***], Intuitive hereby requests that Luna perform [***] of [***] pursuant to Exhibit 2.1 attached hereto. Because Intuitive has requested Luna to [***] in [***] to [***], [***] may [***], in which case Intuitive would need to request [***] in [***] or in [***].

4. Except as specifically provided for herein, all of the terms and conditions of the Agreement shall remain in full force and effect. In the event of a conflict or inconsistency between the terms and conditions contained in this Amendment No. 3 and the Agreement, the provisions herein shall prevail.

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 3 to be executed as of the Amendment Date.

INTUITIVE SURGICAL, INC.		**LUNA INNOVATIONS INCORPORATED**	
Sign:	/s/ David Rosa	Sign:	/s/ Dale Messick
Name:	David Rosa	Name:	Dale Messick
Title:	VP, Product Development	Title:	Interim President and COO
Date:	September 10, 2010	Date:	September 2, 2010

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

*****Text Omitted and Filed Separately**
Confidential Treatment Requested
Under 17 C.F.R. §§ 200.80(b)(4) and 240.24b-2

EXHIBIT 2.1
MILESTONES AND LUNA PRODUCT SPECIFICATIONS

[***]

*** Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Dale E. Messick, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Luna Innovations Incorporated;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: November 15, 2010

/S/ DALE E. MESSICK

Dale E. Messick
Interim President and
Chief Operating Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Scott A. Graeff, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Luna Innovations Incorporated;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: November 15, 2010

/s/ SCOTT A. GRAEFF

Scott A. Graeff
Interim Chief Financial Officer
(principal financial officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Luna Innovations Incorporated (the "Company") on Form 10-Q for the quarterly period ended September 30, 2010 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Dale E. Messick, Interim President and Chief Operating Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification accompanies this Report to which it relates, shall not be deemed "filed" with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.

/s/ DALE E. MESSICK
Dale E. Messick
Interim President and
Chief Operating Officer
(principal executive officer)

November 15, 2010

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Luna Innovations Incorporated (the "Company") on Form 10-Q for the quarterly period ended September 30, 2010 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Scott A Graeff, Interim Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification accompanies this Report to which it relates, shall not be deemed "filed" with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.

/s/ SCOTT A. GRAEFF
Scott A. Graeff
Interim Chief Financial Officer
(principal financial officer)

November 15, 2010