LUNA INNOVATIONS INC
Form 10-Q
November 06, 2008
Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 10-Q

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2008

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)***

1 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. x 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 x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ¨ Yes x 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 4, 2008, there were 11,120,500 shares of the registrant s common stock outstanding.

Table of Contents

LUNA INNOVATIONS INCORPORATED

QUARTERLY REPORT ON FORM 10-Q

FOR THE QUARTER ENDED SEPTEMBER 30, 2008

TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION		3
ITEM 1.	FINANCIAL STATEMENTS	3
ITEM 2.	MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	10
ITEM 3.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	14
ITEM 4.	CONTROLS AND PROCEDURES	14
PART II. OTHER INFORMATION		14
ITEM 1.	LEGAL PROCEEDINGS	14
ITEM 1A.	RISK FACTORS	15
ITEM 2.	UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS	24
ITEM 3.	DEFAULTS UPON SENIOR SECURITIES	24
ITEM 4.	SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS	24
ITEM 5.	OTHER INFORMATION	24
ITEM 6.	EXHIBITS	24
SIGNATURES		24
EXHIBIT INDEX		25

Table of Contents

PART I. FINANCIAL INFORMATION

ITEM 1. ***FINANCIAL STATEMENTS***

Luna Innovations Incorporated

Consolidated Balance Sheets

	September 30, 2008 (unaudited)	December 31, 2007
Assets		
Current assets		
Cash and cash equivalents	$ 15,181,265	$ 12,046,945
Accounts receivable, net	10,415,251	9,716,610
Refundable income taxes	390,661	396,062
Inventory	2,291,968	1,675,239
Other current assets	533,484	333,105
Total current assets	28,812,629	24,167,961
Property and equipment, net	5,639,168	5,859,515
Intangible assets, net	1,815,895	1,911,132
Deferred tax asset	600,000	600,000
Other assets	126,991	10,270
Total assets	**$ 36,994,683**	**$ 32,548,878**
Liabilities and stockholders equity		
Current liabilities		
Current portion of capital lease obligation	$ 21,458	$ 23,885
Current portion of long-term debt obligation	1,071,429	
Accounts payable	4,235,604	3,024,973
Accrued liabilities	5,244,507	5,331,798
Deferred credits	1,732,319	1,672,400
Total current liabilities	12,305,317	10,053,056
Long-term capital lease obligation		4,671
Long-term debt obligation	8,928,571	5,000,000
Deferred credits		354,418
Total liabilities	21,233,888	15,412,145
Stockholders equity:		
Common stock, par value $0.001, 100,000,000 shares authorized, 11,102,365 and 10,704,456 shares issued and outstanding	11,102	10,704
Additional paid-in capital	37,244,157	34,496,063
Accumulated deficit	(21,494,464)	(17,370,034)
Total stockholders equity	15,760,795	17,136,733
Total liabilities and stockholders equity	**$ 36,994,683**	**$ 32,548,878**

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

Table of Contents

Luna Innovations Incorporated

Consolidated Statements of Operations

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2008	2007	2008	2007
	(unaudited)		(unaudited)	
Revenues:				
Technology development revenues	$ 7,246,674	$ 5,952,747	$ 20,795,697	$ 17,091,452
Product and license revenues	3,456,872	2,867,453	8,706,075	6,654,200
Total revenues	10,703,546	8,820,200	29,501,772	23,745,652
Cost of revenues:				
Technology development costs	4,983,336	4,008,829	13,558,984	11,929,264
Product and license costs	1,453,467	1,281,367	4,222,699	2,670,916
Total cost of revenues	6,436,803	5,290,196	17,781,683	14,600,180
Gross Profit	4,266,743	3,530,004	11,720,089	9,145,472
Operating expense	5,371,530	5,511,561	16,466,299	16,182,168
Operating loss	(1,104,787)	(1,981,557)	(4,746,210)	(7,036,696)
Other income				
Litigation proceeds, net of related expenses	666,332		666,332	
Other income	793	49,515	793	47,904
Interest income (expense), net	(36,323)	93,690	(45,345)	290,571
Total other income	630,802	143,205	621,780	338,475
Loss before income taxes	(473,985)	(1,838,352)	(4,124,430)	(6,698,221)
Income tax expense				
Net loss	$ (473,985)	$ (1,838,352)	$ (4,124,430)	$ (6,698,221)
Net loss per share:				
Basic	$ (0.04)	$ (0.18)	$ (0.38)	$ (0.66)
Diluted	$ (0.04)	$ (0.18)	$ (0.38)	$ (0.66)
Weighted average shares:				
Basic	11,055,613	10,293,557	10,924,596	10,134,313
Diluted	11,055,613	10,293,557	10,924,596	10,134,313

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

Table of Contents

Luna Innovations Incorporated

Consolidated Statements of Cash Flows

	Nine months ended September 30,	
	2008 (unaudited)	2007 (unaudited)
Cash flows used in operating activities		
Net loss	$ (4,124,430)	$ (6,698,221)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,425,857	1,324,155
Share-based compensation	2,163,467	1,722,734
Change in assets and liabilities:		
Accounts receivable	(698,641)	(1,546,225)
Refundable income taxes	5,401	
Inventory	(1,029,786)	(707,726)
Other current assets	(258,906)	128,854
Accounts payable and accrued expenses	1,493,982	1,071,451
Deferred credits	(294,499)	925,875
Net cash used in operating activities	(1,317,555)	(3,779,103)
Cash flows used in investing activities		
Acquisition of property and equipment	(318,436)	(1,233,932)
Intangible property costs	(378,780)	(320,110)
Net cash used in investing activities	(697,216)	(1,554,042)
Cash flows from financing activities		
Payments on capital lease obligations	(7,098)	(63,036)
Proceeds from the exercise of options and warrants	156,189	272,777
Proceeds from debt facility	5,000,000	
Payment of debt		(214,955)
Net cash provided by (used in) financing activities	5,149,091	(5,214)
Net change in cash	3,134,320	(5,338,359)
Cash and cash equivalents beginning of period	12,046,945	17,866,753
Cash and cash equivalents end of period	$ 15,181,265	$ 12,528,394
Supplemental disclosure of cash flow information		
Cash paid during the period for:		
Interest	$ 88,382	$ 7,225
Cash received during the period for:		
Income taxes	$ 5,401	$
Supplemental schedule of non-cash activities		
Warrants issued in connection with debt modification	$ 58,194	$

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

Table of Contents

Luna Innovations Incorporated

Notes to Consolidated Financial Statements

1. Basis of Presentation and Significant Accounting Policies

Nature of Operations

Luna Innovations Incorporated (Luna Innovations or the Company) was incorporated in the Commonwealth of Virginia in 1990 and subsequently reincorporated in the State of Delaware in April 2003. We research, develop and commercialize innovative technologies in two primary areas of focus: instrumentation and test & measurement products and healthcare products. We have a disciplined and integrated business model that is designed to accelerate the process of bringing new and innovative products to market. We identify technologies that can fulfill unmet market needs and then take these technologies from the applied research stage through commercialization.

Unaudited Interim Financial Information

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (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, 2008 and results of operations and cash flows for the three and nine months ended September 30, 2008 and 2007. The results of operations for the three and nine months ended September 30, 2008 are not necessarily indicative of the results that may be expected for the year ending December 31, 2008.

The consolidated financial statements, including our significant accounting policies, should be read in conjunction with the audited Consolidated Financial Statements and the notes thereto included in our Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 19, 2008. 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, its wholly owned subsidiaries and other entities in which the Company has a controlling financial interest. We eliminate from our financial results all significant intercompany transactions. We do not have any investments in entities we believe are variable interest entities for which we are the primary beneficiary.

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 and assumptions are based on our knowledge of current events and actions we may undertake in the future, actual results may differ.

Net Loss Per Share

We compute net loss per share in accordance with Statement of Financial Accounting Standards (SFAS) No. 128, *Earnings Per Share*. Basic per share data is computed by dividing loss available to common shareholders by the weighted average number of shares outstanding during the period. Diluted per share data is computed by dividing loss available to common shareholders 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. Common stock equivalents consist primarily of stock options, warrants, and unvested and restricted stock. 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 5,176,979 and 5,021,242 common stock equivalents are ignored for the three and nine months ended September 30, 2008 and 2007, respectively, as they are anti-dilutive to earnings per share. In addition, the conversion of $5.0 million in convertible promissory notes would have been anti-dilutive for such periods.

Inventory

Inventory consists of raw materials, work in process, finished goods 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, 2008 and December 31, 2007 were $22,755 and $18,645, respectively.

The following table presents the components of inventory:

	September 30, 2008	December 31, 2007
Raw Materials	$ 1,787,142	$ 1,195,403
Work in process	$ 380,312	$ 283,818
Finished Goods	$ 147,269	$ 214,663
Less: inventory reserves	$ (22,755)	$ (18,645)
Total Inventory	$ 2,291,968	$ 1,675,239

Share Based Compensation

We have a share-based compensation plan, which is described further in Note 9 to the Financial Statements in our Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 19, 2008. We apply SFAS No. 123R, *Share-Based Payment* (SFAS No. 123R) in determining the compensation expense recognized under our share-based compensation plan. Compensation expense is computed using the Black-Scholes option pricing model. We amortize share-based compensation for such awards on a straight-line basis over the related service period of the awards taking into account the effects of the employees expected exercise and post-vesting employment termination behavior. We account for equity instruments issued to non-employees in accordance with the provisions of SFAS No. 123R and Emerging Issues Task Force (EITF) Issue No. 96-18. We account for share-based employee compensation arrangements in accordance with the provisions of SFAS No. 123R. We account for equity instruments issued to non-employees in accordance with the provisions of SFAS No. 123R and EITF Issue No. 96-18.

Table of Contents

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, 2008	Nine Months Ended September 30, 2007
Risk-free interest rate range	3.8% - 4.0%	4.5% - 5.2%
Expected life of option range of years	7.5	7.0 - 7.5
Expected stock price volatility	63%	56.8% - 64%
Expected dividend yield		

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. Expected volatility for the nine months ended September 30, 2008 was based on the average volatility of comparable public companies due to the lack of historical market price data for our stock on such date. The expected life and estimated post employment termination behavior is based upon historical experience of homogeneous groups within our company.

A summary of the status of 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 Exercise Price	Aggregate Intrinsic Value (1)
Balance, December 31, 2007	4,747,815	$ 0.35 - $8.20	$ 1.95	$ 31,477,522	2,543,218	$ 0.96	$ 19,366,620
Granted	502,750	$ 6.55 - $6.74	$ 6.55				
Exercised	(132,133)	$ 0.35 - $1.77	$ 0.56				
Canceled	(83,241)	$ 0.35 - $6.00	$ 2.10				
Balance, March 31, 2008	5,035,191	$ 0.35 - $8.20	$ 2.51	$ 27,941,472	2,557,187	$ 1.02	$ 17,818,506
Granted	175,400	$ 8.04 - $8.04	$ 8.04				
Exercised	(96,666)	$ 0.35 - $6.00	$ 0.45				
Canceled	(20,456)	$ 0.35 - $6.00	$ 3.94				
Balance, June 30, 2008	5,093,469	$ 0.35 - $8.20	$ 2.67	$ 12,284,795	2,673,023	$ 1.12	$ 9,474,494
Granted	76,750	$ 5.50 - $5.69	$ 5.57				
Exercised	(103,097)	$ 0.35 - $1.77	$ 0.36				
Canceled	(8,153)	$ 0.35 - $6.00	$ 4.41				
Balance, September 30, 2008	5,058,969	$ 0.35 - $8.20	$ 2.76	$ 9,294,288	2,773,235	$ 1.20	$ 7,791,041

(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-money options only. The aggregate intrinsic value is based on the price of $3.92 on September 30, 2008, which represents the closing price of the Company s Common Stock on the NASDAQ Global Market on September 30, 2008.

At September 30, 2008, our 5,058,969 outstanding stock options had a weighted average remaining contractual term of 7.5 years, and of these 2,773,235 are exercisable and have a weighted average remaining contractual term of 6.6 years.

The aggregate intrinsic value of grants exercised during the three months ending September 30, 2008 and 2007 was $0.5 million and $0.3 million, respectively. The total aggregate intrinsic value represents the total amount by which the fair market value of stock exceeded the exercise price for options exercised.

For the three months ended September 30, 2008 and 2007, we recognized $740,565 and $626,179, respectively, in share-based payment expense, and for the nine months ended September 30, 2008 and 2007, we recognized $2.2 million and $1.7 million, respectively, in share-based payment expense. We will recognize approximately $6.8 million over the remaining requisite service period of approximately four years for

options outstanding as of September 30, 2008. Our net operating losses begin to expire in 2024.

Income Taxes

A deferred tax asset of $600,000 was recorded at both September 30, 2008 and December 31, 2007, based upon management s assessment that more likely than not the benefit will be realized in future periods. The tax effect of our net operating loss for the nine months ended September 30, 2008 is $9.3 million, with a valuation allowance of $8.7 million. The effects of a Section 382 adjustment with respect to Luna Technologies are taken into account in computing the $9.3 million net operating loss.

Subordinated Notes, Warrants, Amortization of Debt Discount, and Fair Value Determination

In May 2008 we amended the terms of our notes with principal amounts totaling $5.0 million with Carilion Clinic to extend their due date to December 31, 2012 and to subordinate them to our new credit facility with Silicon Valley Bank. We issued warrants to purchase 10,000 shares of Luna Common Stock at a price of $7.98 per share in connection with the amended terms. The warrants expire on December 31, 2017. We valued the warrants using the Black-Scholes option pricing model, and recorded a deferred financing charge of $58,194.

Revenues

We perform research and development for U.S. Federal government agencies, educational institutions and commercial organizations. We recognize revenues under research contracts when a contract has been executed, the contract price is fixed and determinable, delivery of services or products has occurred and collection of the contract price is considered probable. Revenues are earned under cost reimbursable, time and materials and fixed price contracts. Direct contract costs are expensed as incurred.

Under cost reimbursable contracts, we are reimbursed for allowable costs and paid a fixed fee. Revenues on cost reimbursable contracts are recognized as costs are incurred plus a portion of the fee earned. Revenues on time and materials contracts are recognized based on direct labor hours expended at contract billing rates plus other billable direct costs.

Revenue for fixed price research contracts that involve the delivery of services and a prototype model are recognized under the percentage of completion method in accordance with Statement of Position (SOP) 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*. Fixed price arrangements that involve the delivery of research reports are recognized under the proportional performance method based upon the ratio of costs incurred to achieve contract milestones to total estimated cost. Losses on contracts, if any, are recognized in the period in which they become known.

Table of Contents

Revenues from product sales that require no ongoing obligations are recognized as revenues when shipped to the customer, title has passed and collection is reasonably assured. In transactions where a right-of-return exists, revenues are deferred until acceptance has occurred and the period for the right-of-return has lapsed. As of December 31, 2007, we have not entered into sales transactions where rights of return exist. As of September 30, 2008, we had one such transaction, and we recognized no revenue on this transaction.

Our products usually include software as a significant and integral component. After considering the requirements of SOP 97-2, *Software Revenue Recognition*, we have concluded that our product sales do not include multiple elements which would require allocating revenue among product and service components, and deferring recognition of revenue relating to the software or other components of any product.

When we enter into a sales arrangement with multiple deliverables, we review the various products and/or services to be provided in each arrangement in accordance with the provisions of EITF 00-21, *Revenue Arrangements with Multiple Deliverables*, to determine whether individual products and/or services to be delivered should be considered a separate unit of accounting for purposes of determining revenue recognition. The individual product or service would be considered a separate unit of accounting if all of the following criteria are met: (a) the delivered item has value to the customer on a stand-alone basis; (b) there is objective and reliable evidence of the fair value of the undelivered item(s); and (c) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the Company.

Recent Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board (FASB) ratified EITF 07-5, *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity s Own Stock* (EITF 07-5). EITF 07-5 addresses the determination of whether a financial instrument (or an embedded feature) is indexed to an entity s own stock. EITF 07-5 is effective for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The adoption of EITF 07-5 is not expected to have a material impact on our consolidated financial statements.

In May 2008, the FASB issued SFAS No. 162, *The Hierarchy of Generally Accepted Accounting Principles*. SFAS 162 identifies a hierarchy for selecting accounting principles to be used in preparing financial statements that are presented in conformity with U.S. GAAP for nongovernmental entities. SFAS 162 is effective 60 days following the SEC s approval of the Public Company Accounting Oversight Board amendments to AU Section 411, *The Meaning of Present Fairly in Conformity with Generally Accepted Accounting Principles*.

In December 2007, the FASB issued SFAS No. 141(R), *Business Combinations*. SFAS No. 141(R) requires entities to recognize assets acquired, liabilities assumed, and any non-controlling interest in an acquiree, measured at the fair market value at the acquisition date. SFAS No. 141(R) is applied prospectively to business combinations for which the acquisition date is on or after the beginning of the first fiscal year beginning after December 15, 2008. Since we have no current acquisition plans, we do not believe that the adoption of SFAS No. 141(R) will have a material impact on our financial statements.

In December 2007, the FASB issued SFAS No. 160, *Non-controlling Interests in Consolidated Financial Statements*. SFAS No. 160 establishes accounting and reporting standards for the non-controlling interest in a subsidiary and the deconsolidation of a subsidiary. It requires consolidated net income to be reported at amounts that include the amounts attributable to both the parent and a non-controlling interest. SFAS No. 160 is effective for fiscal years ending on or after December 15, 2008. We do not believe that the adoption of SFAS No. 160 will have a material impact on our financial statements.

Recently Adopted Standards

In June 2007, the FASB ratified EITF 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities* (EITF 07-3). EITF 07-3 requires that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities be deferred and capitalized and recognized as an expense as the goods are delivered or the related services are performed. EITF 07-3 is effective, on a prospective basis, for fiscal years beginning after December 15, 2007. The adoption of EITF 07-3 did not have a material impact on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an amendment of FASB Statement No. 115*. SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value. Unrealized gains and losses on items for which the fair value option has been elected will be recognized in earnings at each subsequent reporting date. The adoption of SFAS No. 159 did not have a material impact on our financial statements.

2. Line of Credit & Debt Facility

On May 21, 2008, we canceled our previous line of credit agreement with First National Bank, and entered into a $10 million maximum debt facility with Silicon Valley Bank. Included in this facility is a four year term debt of $5 million and a revolving line of credit facility available for the remaining $5 million. The facility has a total debt capacity of $10 million. At September 30, 2008, there was an outstanding balance of $5 million under the term loan, and no outstanding balance under the revolving facility. As part of the facility, Silicon Valley Bank issued a $479,667 letter of credit on our behalf to the Industrial Development Authority of Montgomery County, Virginia, as required under an office lease. The Silicon Valley Bank letter of credit was issued as a replacement for the previous letter of credit issued on our behalf by First National Bank in the amount of $599,583.

3. Capital Structure

For the nine months ended September 30, 2008, our capital structure changed as follows:

	Common Stock		Additional Paid-in
	Shares	$	Capital
Balances, December 31, 2007	10,704,456	$ 10,704	$ 34,496,063
Exercise of stock options	135,133	136	75,533
Share-based compensation			759,642
Shares issued in lieu of cash bonus	62,922	63	309,153
Adjustment of estimated IPO-related expenses			61,427
Balances, March 31, 2008	10,902,511	$ 10,903	$ 35,701,818
Exercise of stock options	96,666	96	29,632
Share-based compensation			663,260
Warrants issued in exchange for debt modification			58,194
Balances, June 30, 2008	10,999,177	$ 10,999	$ 36,452,904
Exercise of stock options & other stock issuances	103,188	103	50,688
Share-based compensation			740,565
Balances, September 30, 2008	11,102,365	$ 11,102	$ 37,244,157

Table of Contents

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, in whole or in part, by the Technology Development segment. The Product and Licensing segment derives its revenue from product sales, product development fees and technology licenses.

The Chief Executive Officer and his direct reports collectively represent 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 Form 10-K as filed with the Securities and Exchange Commission on March 19, 2008.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2008	2007	2008	2007
Technology Development Revenue	$ 7,246,674	$ 5,952,747	$ 20,795,697	$ 17,091,453
Product and License Revenue	3,456,872	2,867,453	8,706,075	6,654,200
Total Revenue	$ 10,703,546	$ 8,820,200	$ 29,501,772	$ 23,745,653
Technology Development Operating Loss	$ (211,379)	$ (1,164,837)	$ (802,505)	$ (3,150,601)
Product and License Operating Loss	(893,408)	(816,720)	(3,943,705)	(3,886,095)
Total Operating Loss	$ (1,104,787)	$ (1,981,557)	$ (4,746,210)	$ (7,036,696)

Additional segment information is as follows:

	September 30, 2008	December 31, 2007
Total segment assets:		
Technology Development	$ 31,020,031	$ 27,806,304
Product and License	5,974,652	4,742,844
Total	$ 36,994,683	$ 32,548,878

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

The United States Government accounted for approximately 70% and 72% of total consolidated revenues for the three months ended September 30, 2008 and 2007, respectively, and 70% and 77% of revenues for the nine months ended September 30, 2008 and September 30, 2007, respectively.

International revenues (customers outside of the United States) accounted for 7% and 1% of total revenues for the three months ended September 30, 2008 and 2007, respectively, and 6% and 1% of total revenues for the nine months ended September 30, 2008 and 2007,

respectively.

5. Contingencies and Guarantees

On September 10, 2007, we filed a complaint against our former auditing and accounting firm in connection with the firm s auditing and opining on the accuracy of several years of our consolidated financial statements in preparation for our registration with the Securities and Exchange Commission and our initial public offering of securities. On July 23, 2008, the parties settled the litigation at mediation without any admission of liability, or adjudication of fact or law. The material terms of settlement include payment to Luna of $1.0 million in exchange for mutual releases of all claims and counterclaims and dismissal with prejudice of all claims and counterclaims. The settlement amount of $1.0 million, less related expenses incurred in 2008 of $0.3 million, is recorded as other income.

From time to time, we are involved in certain legal proceedings in the ordinary course of conducting our business. For instance, on June 22, 2007, Hansen Medical Inc., or Hansen, a company for which we had conducted certain research and performed certain services, filed a complaint against us in the Superior Court of the State of California, County of Santa Clara. On March 18, 2008, the complaint was amended and alleges misappropriation of trade secrets, aiding and abetting breach of fiduciary duty, unfair competition, breach of contract, conversion, intentional interference with contract, breach of implied covenant of good faith and fair dealing, declaratory judgment, and fraud. In addition to money damages in an unspecified amount, the plaintiff company seeks, among other things, equitable relief, including an injunction against our using the allegedly misappropriated Hansen trade secrets in connection with our work with Intuitive Surgical, Inc. (Intuitive) or otherwise. We have answered the complaint and intend to defend ourselves vigorously in this matter. We also filed a counterclaim against Hansen and an amended counterclaim on March 18, 2008. Our counterclaim asserts claims for declaratory judgment, misappropriation of trade secrets, breach of contract, unfair competition under the California Business and Professional Code, breach of implied covenant of good faith and fair dealing, declaratory judgment, and unjust enrichment. We seek money damages from Hansen in an amount to be proven at trial and equitable, including declaratory, relief. In April 2008, the parties participated in a non-binding arbitration. In May 2008, the arbitrator rendered a non-binding award. In June 2008, we rejected the non-binding award, and the case is proceeding to trial on the merits, currently scheduled for March 2009. While we cannot currently determine the ultimate liability pursuant to these actions, if we are unsuccessful in our litigation with Hansen, our business may be materially harmed.

On May 30, 2006, we were served with a complaint filed by a former employee in the Circuit Court for the City of Roanoke, Virginia, alleging that we breached a consulting agreement with the former employee, and that we are indebted to the former employee in an unspecified amount of at least $100,000. We have answered the complaint and intend to defend ourselves vigorously in this matter. While we believe the former employee s claims are without merit, counsel for such former employee has indicated that he may file additional claims against us. To date, no such additional claims have been filed. However, we cannot predict whether such former employee will file additional litigation against us or our subsidiaries or the ultimate outcome of any such litigation.

Table of Contents

We have an outstanding letter of credit at September 30, 2008, of $479,667 to the Industrial Development Authority of Montgomery County, Virginia, to support a lease of office space. This letter of credit expires in 2011.

In September 2008, our Luna Technologies Division executed a non-cancelable, non-reschedulable $1.9 million purchase order for multiple shipments of tunable lasers to be delivered over an 18-month period beginning in September 2008. As of September 30, 2008, approximately $1.9 million of this commitment remained.

In March 2004, we received a grant of $0.9 million from the City of Danville, Virginia under a Grant Agreement to support the expansion of economic and commercial growth within the City of Danville. Under the Grant Agreement, we agreed to locate a nanomaterials manufacturing and research facility and maintain its operations in the City of Danville until March 25, 2009. As of September 25, 2006, we had not fully met the capital expenditures and job creation milestones under this agreement, and, as a result, we may be obligated to repay the City of Danville a portion of the $0.9 million in funds based on a formula of the pro rata shortfall of such expenditures and jobs falling below such required levels. Because of the failure to meet these milestones and the continuing obligation to maintain our investment and employees at this location through March 25, 2009, we currently have classified the full amount of the grant as a liability on our balance sheet in anticipation of potentially returning the funds.

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 two primary areas of focus: instrumentation and test & measurement, sensing, and instrumentation products and healthcare products. We have a disciplined and integrated business model that is designed to accelerate the process of bringing new and innovative products to market. We identify technologies that can fulfill large and unmet market needs and then take these technologies from the applied research stage through commercialization. Although revenues from product sales currently represent less than 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 employs a market-driven approach and 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 Products 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 revenues were $29.5 million and $23.7 million during the nine months ended September 30, 2008 and 2007, respectively, and we had net losses of $4.1 million and $6.7 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. Our technology development revenues grew from $17.1 million to $20.8 million for the nine month periods ended September 30, 2007 and 2008, respectively. 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 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. The approximate value of our backlog was $25.7 million as of September 30, 2008, an increase of $0.5 million from December 31, 2007.

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. License revenues associated with our proprietary technologies have been significant in prior years. 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 increase our investments 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 expect to continue to incur significant additional expenses as we expand our business, including increased expenses for research and development, sales and marketing, manufacturing, and finance and accounting personnel. Although we have no current plans in this regard, we may also grow our business in part through acquisitions of additional companies and complementary technologies which could cause us to incur transaction expenses, amortization or write-offs of intangible assets and other acquisition-related expenses. As a result, we expect that we will continue to incur losses in 2008 and that these losses could be substantial.

Our operating expenses include stock-based compensation charges. We recorded stock-based compensation charges of $2.2 million for the nine months ended September 30, 2008. We also expect to record an aggregate stock-based compensation charge for stock options granted through September 30, 2008 of $6.8 million, to be recognized in future periods through 2013.

Global economic and political conditions affect our customers businesses and the markets they serve. With over 60% of our revenues derived from U.S. federal government contracting research, we have not detected a significant effect to our financial results resulting from an economic downturn. However, a severe and/or prolonged economic downturn or a negative or uncertain political climate could adversely affect our customers financial condition and the levels of business

Table of Contents

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.

Description of Our Revenues, Costs and Expenses

Revenues

We generate revenues from technology development (contract research), contract product development, and product sales. 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 currently represent approximately 30% of our total revenues.

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; manufacturing, shipping and handling; provisions for product warranty; and inventory obsolescence, as well as overhead allocated 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.

Interest Income/Expense

On May 21, 2008, we canceled our senior secured revolving credit facility with First National Bank, and entered into a new $10 million debt facility with Silicon Valley Bank. At September 30, 2008, a $5 million term loan was outstanding under this new facility. Interest expense includes interest accrued on the outstanding aggregate principal of the senior convertible promissory notes issued to Carilion Clinic on December 30, 2005, and interest payable on the Silicon Valley Bank debt term loan.

Interest income includes amounts earned on our cash deposits with financial institutions. During 2007 and the nine month period ended September 30, 2008, we invested the proceeds of the Carilion financing transactions and the net proceeds from our initial public offering in a money market account, and we draw from that account as needed to fund ongoing operations. We have currently invested the proceeds from the Silicon Valley Bank debt facility in a money market account.

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 accounting principles generally accepted in the United States (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 significant accounting policies are described in the Management 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, 2007, as filed with the Securities and Exchange Commission on March 19, 2008.

Results of Operations

Three Months Ended September 30, 2008 Compared to Three Months Ended September 30, 2007

Revenues

Total revenues increased 21% to $10.7 million for the three months ended September 30, 2008, from $8.8 million for the three months ended September 30, 2007. The increase was due to increased product sales related to our Luna Technologies Division, as well as an increase in technology development revenue recognized. We incurred increased costs of labor and other direct costs which resulted in the increase in technology development revenue. Approximately 69% of the growth in revenues from the corresponding period in 2007 was due to increased revenues from our Technology Development Division, and approximately 31% of the increase was due to increased product sales and product development revenues. We generated approximately $3.5 million in product sales in the third quarter of 2008 as compared with $2.9 million in the third quarter of 2007, an increase of approximately 21%, due primarily to increases in product development revenue related to our shape sensing technology and increased sales of fiber optic test and measurement equipment by our Luna Technologies division.

Cost of Revenues

Cost of revenues increased 22% to $6.4 million for the three months ended September 30, 2008 from $5.3 million for the corresponding 2007 period. The main component of this overall increase was increased costs of labor and other direct costs related to increases in technology development revenue. New technology development cost of sales increases accounted for approximately $1.0 million, or 85%, and product sales cost increases accounted for approximately $0.2 million, or 15%, respectively, of the overall increase in costs of revenues.

Technology development costs increased 24% to $5.0 million for the three months ended September 30, 2008 from $4.0 million in the same period in 2007. This increase was consistent with the 22% increase in our technology development revenues, and was comprised primarily of additional direct labor, subcontracting costs, and other direct costs related to research and development activities.

Product and licensing costs increased 13% to $1.5 million for the three months ended September 30, 2008 from $1.3 million in the same period in 2007. This increase is due to an increase in the number of units sold.

Table of Contents

Our overall gross margin remained consistent as compared with the third quarter of 2007. Our overall gross margin during the three months ended September 30, 2008 and the same period in 2007 was 40%. During the three months ended September 30, 2008, technology development activity returned a gross margin of approximately 31% compared to 33% in the same period of 2007. Product sales activity returned a gross margin of 58% for the three months ended September 30, 2008, compared to 55% for the same period in 2007.

Operating Expense

Operating expense decreased 3% to $5.4 million for the three months ended September 30, 2008 from $5.5 million for the corresponding quarter in 2007, primarily as a result of decreased legal expenses related to the settlement of a dispute through mediation in July 2008. The decrease was primarily attributable to legal expenses of $0.3 million, which were netted against the proceeds of $1.0 million from a settlement of litigation at mediation, and recorded in other income.

Other Income (Expense)

On July 23, 2008, we settled litigation at mediation with our former auditing and accounting firm in connection with the firm s auditing and opining on the accuracy of several years of our consolidated financial statements in preparation for our registration with the Securities and Exchange Commission and our initial public offering of securities. The settlement of the litigation at mediation was without any admission of liability, or adjudication of fact or law, and the material terms included payment to us of $1.0 million. The $0.7 million in other income related to this settlement is comprised of the proceeds of $1.0 million, less related legal expenses of $0.3 million.

Net interest income decreased from approximately $94,000 for the three months ended September 30, 2007, to a net interest expense of $36,000 for the three months ended September 30, 2008. This decrease was attributable to a reduction in invested cash and lower interest rates, combined with an increase in interest payments due to the addition of a $5.0 million term loan from the Silicon Valley Bank debt facility.

We incurred approximately $77,000 in interest expense on the $5.0 million Silicon Valley Bank term loan. We also incurred approximately $76,000 in interest expense on our convertible promissory notes issued to Carilion Clinic on December 30, 2005. These notes have an aggregate outstanding principal of approximately $5.0 million and accrue simple interest at a rate of 6.0% per year. In addition, interest income earned on invested cash positions for the three months ended September 30, 2008, totaled approximately $103,000.

Nine Months Ended September 30, 2008 Compared to Nine Months Ended September 30, 2007

Revenues

Total revenues increased 24% to approximately $29.5 million for the nine months ended September 30, 2008, from $23.7 million for the nine months ended September 30, 2007. Approximately 64% of the growth in revenues from the corresponding period in 2007 was due to increased revenues from our Technology Development Division, and approximately 36% of the increase was due to increased product sales and product development revenues. Product sales and product development revenues increased 31%, to $8.7 million for the nine months ended September 30, 2008, as compared to $6.7 million for the nine months ended September 30, 2007. This increase was primarily a result of increased sensing product sales as well as an increase in product development activity principally related to our shape sensing technology.

Growth in our technology development revenues also contributed to our overall growth in revenues for the nine months ended September 30, 2008 as compared with the same period in 2007. Technology development revenues increased 22% to $20.8 million for the nine months ended September 30, 2008 from $17.1 million for the corresponding 2007 period. This increase was primarily a result of a continued strong success in obtaining research contracts, an increase in the size of certain awards, and the addition of direct contract personnel that permitted us to service more contracts.

During the period ending March 31, 2008, we identified certain product development contracts, which we account for using the percentage of completion method, where our estimated cost to complete increased significantly from our prior estimates. The resulting decrease in the overall percentage of completion resulted in an adjustment to reduce revenues previously recognized. Pursuant to the provisions of SOP 81-1, *Accounting for the Performance of Construction-Type and Certain Production-Type Contracts*, we reduced our product and licensing revenues for the period ending March 31, 2008 on a cumulative basis in the amount of $0.3 million.

Cost of Revenues

Cost of revenues increased 22% to $17.8 million for the nine months ended September 30, 2008 from $14.6 million for the corresponding 2007 period. The components of this overall increase were increased costs of labor and materials related to increases in technology development revenue, as well as increased costs related to product and licensing revenue. New technology development cost of sales increases accounted for approximately $1.63 million, or 51%, and product sales cost increases accounted for approximately $1.55 million, or 49%, respectively, of the overall increase in costs of revenues.

Technology development costs increased 14% to $13.6 million for the nine months ended September 30, 2008 from $11.9 million in the same period in 2007. This increase was comprised primarily of additional direct labor and the technology associated overhead related to research and development activities.

Product and licensing costs increased 58% to $4.2 million for the nine months ended September 30, 2008 from $2.3 million in the same period in 2007. This increase was incurred due to a 41% increase in the number of units sold for the nine months ended September 30, 2008 versus September 30, 2007.

Product sales activity returned a gross margin of 52% for the nine months ended September 30, 2008, compared to 60% for the same period in 2007. The decrease in gross margin associated with our product and license segment was primarily attributable to the cumulative adjustment in product and license revenue described above, relating to the effects of applying SOP 87-1 to certain contracts.

Our overall gross margin improved as compared with the first nine months of 2007. Our overall gross margin during the nine months ended September 30, 2008 was 40% compared to 39% during the same period in 2007. During the nine months ended September 30, 2008, technology development activity returned a gross margin of approximately 35% compared to 30% in the same period of 2007.

Operating Expense

Operating expense increased 2% to $16.4 million for the nine months ended September 30, 2008 from $16.2 million for the corresponding period in 2007. The primary driver of the increase in the first nine months of 2008 as compared to the same period in 2007 was an increase in legal expenses associated with on-going legal matters, offset with a decrease due to netting expenses associated with a legal settlement received during the three months ending September 30, 2008, with the settlement reflected in other income.

Other Income (Expense)

On July 23, 2008, we settled litigation at mediation with our former auditing and accounting firm in connection with the firm s auditing and opining on the accuracy of several years of our consolidated financial statements in preparation for our registration with the Securities and Exchange Commission and our initial public

Table of Contents

offering of securities. The settlement of the litigation at mediation was without any admission of liability, or adjudication of fact or law, and the material terms included payment to us of $1.0 million. The $0.7 million in other income related to this settlement is comprised of the proceeds of $1.0 million, less related legal expenses of $0.3 million.

Net interest income decreased from $0.3 million in net interest income for the nine months ended September 30, 2007 to approximately $45,000 in net interest expense for the nine months ended September 30, 2008. This decrease was attributable to a reduction in invested cash and lower interest rates, and an increase in interest payments due to the addition of a $5.0 million term loan from the Silicon Valley Bank debt facility.

During the nine month period ended September 30, 2008, we incurred approximately $77,000 in interest expense on the $5.0 million Silicon Valley Bank term loan. We also incurred $0.2 million in interest expense on our convertible promissory notes issued to Carilion Clinic on December 30, 2005. These notes have an aggregate outstanding principal of approximately $5.0 million and accrue simple interest at a rate of 6.0% per year. Interest income for the nine months ended September 30, 2008 totaled $0.3 million.

Liquidity and Capital Resources

Until May 2008, we had a $3.0 million senior secured revolving credit facility with First National Bank that was collateralized by a security interest in substantially all of our assets. The interest rate on borrowings under our secured revolving credit facility was equal to the prime rate, limited to no less than 6.0% and no greater than 10.0% per annum, with interest payable monthly. This agreement also provided a $1.0 million sub-limit for letters of credit.

In May 2008, we canceled our $3.0 million senior secured revolving credit facility with First National Bank, and entered into a $10.0 million credit facility with Silicon Valley Bank, which includes a four year term debt of $5.0 million and a remaining facility of up to $5.0 million available under a four-year revolving line of credit, based on the balance of our term loan at September 30, 2008. As we repay the term debt principal, the revolving facility available increases, so that at any time, the term debt plus the revolving debt may be equal to up to $10 million. For the remainder of 2008, we will pay only the interest portion of the loan. The interest rate on borrowings under the secured revolving facility is a floating per annum rate of one half of one percentage point above the prime interest rate, or 5.5% as of September 30, 2008. Interest on the term loan is a floating per annum rate of one percentage point above the prime interest rate, or 6.0% as of September 30, 2008. Beginning in January, 2009, we will begin to pay interest and principal monthly, so that principal is paid back ratably over 42 months. This agreement also provided a $1.0 million sub-limit for letters of credit. The facility is secured by certain company assets and is subject to customary covenants, including covenants requiring us to meet EBITDA milestones and liquidity ratios. In connection with the credit facility with Silicon Valley Bank, Carilion Clinic agreed to extend the maturity date of the existing $5.0 million aggregate principal amount in notes payable to Carilion Clinic to December 31, 2012, from the original date of December 30, 2009, and to subordinate the Carilion Clinic debt to that of Silicon Valley Bank.

Discussion of Cash Flows

Recent Activity

We used approximately $1.3 million and $3.8 million of net cash from operations during the nine months ended September 30, 2008 and 2007, respectively. The decrease in cash used in operations resulted primarily from a decrease of $2.6 million in net loss. The decrease in net loss includes the net effect of $0.7 million relating to proceeds received from a settlement of litigation at mediation. A decrease in deferred credits related to certain product development contracts used $0.3 million in cash during the nine months ended September 30, 2008, compared to providing cash of $0.9 million for the same period ended 2007, resulting in a net decrease in cash between the two periods of $1.2 million. Additionally, changes in working capital accounts (other than deferred credits) used a net $0.5 million in cash from operating activities for the nine months ended September 30, 2008 compared to $1.0 million used for the nine months ended September 30, 2007.

Cash used in investing activities for the nine months ended September 30, 2008 related primarily to the purchase of property and equipment and legal fees associated with securing patent rights to certain technology. Our overall cash used in investing activities was $0.7 million in the nine months ended September 30, 2008, compared to $1.6 million in the corresponding September 30, 2007 period. In future months, we expect that our cash used in investing activities will remain consistent with the current level.

Cash flows provided by financing activities for the nine months ended September 30, 2008 was $5.1 million, representing an increase in cash flow from cash generated by financing activities for the nine months ended September 30, 2007. Cash generated by financing activities for the nine months ended September 30, 2008 predominantly consisted of proceeds from the Silicon Valley Bank debt facility of $5.0 million. We did not draw additional financing from our line of credit or other sources in the nine months ended September 30, 2008.

At September 30, 2008, total cash and cash equivalents were approximately $15.2 million. We believe that our current cash on hand and cash available under our line of credit agreement will be sufficient to fund operations for the next 12 months.

Summary of Contractual Obligations

We lease our facilities in Blacksburg, Charlottesville, Danville, Hampton, and Roanoke, Virginia under operating leases that expire on various dates through January 2014 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 January 2010. The assets subject to these obligations are included in property and equipment on our consolidated balance sheet.

Our Luna Technologies Division has an agreement with a supplier to purchase tunable lasers and estimates its non-cancellable obligation to be approximately $1.9 million through 2010.

In March 2004, we received a grant of $0.9 million from the City of Danville, Virginia under a Grant Agreement to support the expansion of economic and commercial growth within the City of Danville. Under the Grant Agreement, we agreed to locate a nanomaterials manufacturing and research facility and maintain its operations in the City of Danville until March 25, 2009. As of September 25, 2006, we had not fully met the capital expenditures and job milestones under this agreement, and, as a result, we may be obligated to repay the City of Danville a portion of the $0.9 million in funds based on a formula of the pro rata shortfall of such expenditures and jobs falling below such required levels. Because of the failure to meet these milestones and the continuing obligation to maintain our investment and employees at this location through March 25, 2009, we currently have classified the full amount of the grant as a liability on our balance sheet in anticipation of potentially returning the funds.

Off-Balance Sheet Arrangements

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

Table of Contents

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, particularly because as of September 30, 2008, our cash reserves were maintained in money market investment accounts invested solely in U.S. Government obligations, and were not exposed to material market risks.

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 immediate available liquidity or short-term nature of these financial instruments. As of September 30, 2008 we had $15.2 million deposited in cash and cash equivalents bearing a weighted-average interest rate of 2.56%.

We are exposed to interest rate fluctuations, as a result of our Silicon Valley Bank term loan and revolving debt facility both having interest rates subject to market fluctuations. We do not currently use derivative instruments to alter the interest rate characteristics of any of our debt. The interest rate on our revolving debt facility with Silicon Valley Bank is at prime plus one half of one percentage point. The interest rate on our term loan with Silicon Valley Bank is at prime plus one percentage point. At September 30, 2008 this resulted in a 5.5% and 6.0% rate for the revolving debt facility and the term loan, respectively. A 10% fluctuation in interest rates would not have a material impact on our financial statements.

Foreign Currency Exchange Rate Risk

Our product sales to foreign customers are 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

Our Chief Executive Officer and our Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Securities Exchange Act of 1934 (the Exchange Act) Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report (the Evaluation Date), have concluded that as of the Evaluation Date, our disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and (ii) is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Internal control over financial reporting means a process designed 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.

PART II. OTHER INFORMATION

ITEM 1. ***LEGAL PROCEEDINGS***

From time to time, we may become involved in litigation in relation to claims arising out of our operations in the normal course of business. While management currently believes the amount of ultimate liability, if any, with respect to these actions will not materially affect our financial position, results of operations, or liquidity, the ultimate outcome of any litigation is uncertain. Were an unfavorable outcome to occur, or if

protracted litigation were to ensue, the impact could be material to us.

On September 10, 2007, we filed a complaint against our former auditing and accounting firm in connection with the firm s auditing and opining on the accuracy of several years of our consolidated financial statements in preparation for our registration with the Securities and Exchange Commission and our initial public offering of securities. On July 23, 2008, the parties settled the litigation at mediation without any admission of liability, or adjudication of fact or law. The material terms of settlement include payment to Luna of $1.0 million and a mutual general release, as well as joint dismissal with prejudice of all claims and counterclaims. The $0.7 million in other income related to this settlement is comprised of the proceeds of $1.0 million, less related legal expenses of $0.3 million.

On June 22, 2007, Hansen Medical Inc., (Hansen) a company for which we had conducted certain research and performed certain services, filed a complaint against us in the Superior Court of the State of California, County of Santa Clara. On March 18, 2008, the complaint was amended and alleges misappropriation of trade secrets, aiding and abetting breach of fiduciary duty, unfair competition, breach of contract, conversion, intentional interference with contract, breach of implied covenant of good faith and fair dealing, declaratory judgment, and fraud. In addition to money damages in an unspecified amount, the plaintiff company seeks, among other things, equitable relief, including an injunction against our using the allegedly misappropriated Hansen trade secrets in connection with our work with Intuitive Surgical, Inc. or otherwise. We have answered the complaint and intend to defend ourselves vigorously in this matter. We also filed a counterclaim against Hansen and an amended counterclaim on March 18, 2008. Our counterclaim asserts claims for declaratory judgment, misappropriation of trade secrets, breach of contract, unfair competition under the California Business and Professional Code, breach of implied covenant of good faith and fair dealing, declaratory judgment, and unjust enrichment. We seek money damages from Hansen in an amount to be proven at trial and equitable, including declaratory, relief. In April 2008, the parties participated in a non-binding arbitration. In May 2008, the arbitrator rendered a non-binding award. In June 2008, we rejected the non-binding award, and the case is proceeding to trial on the merits, currently scheduled for March 2009. While we believe the plaintiff s claims are without merit, we cannot predict the ultimate outcome of this litigation.

On May 30, 2006, we were served with a complaint filed by a former employee in the Circuit Court for the City of Roanoke, Virginia, alleging that we breached a consulting agreement with the former employee, and that we are indebted to the former employee in an unspecified amount of at least $100,000. We have answered the complaint and intend to defend ourselves vigorously in this matter. While we believe the former employee s claims are without merit, counsel for such former employee has indicated that he may file additional claims against us. To date, no such additional claims have been filed. However, we cannot predict whether such former employee will file additional litigation against us or our subsidiaries or the ultimate outcome of any such litigation.

Table of Contents

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 Securities and Exchange Commission also contain forward-looking statements that involve risks or uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face described below.

RISKS RELATING TO OUR BUSINESS

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 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.

We rely and will continue to rely on contract research, including government-funded research contracts, for a significant portion of our revenues. A decline in government funding of existing or future government research contracts, including Small Business Innovation Research (or SBIR) revenues, could adversely affect our revenues and cash flows and our ability to fund our growth.

Technology development revenue, which consists primarily of government-funded research, accounted for approximately 70% and 72% of our consolidated total revenues for the nine months ended September 30, 2008 and 2007, respectively. As a result, we are vulnerable to adverse changes in our revenues and cash flows if a significant number of our research contracts and subcontracts are 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.

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 also derive a significant portion of our technology development revenues from SBIR contracts. SBIR revenues accounted for approximately 41% and 52% of our consolidated total revenues for the three months ended September 30, 2008 and 2007, respectively. Contract research, including SBIR, will remain a significant portion of our consolidated total revenues for the foreseeable future. Our strategy for developing innovative technologies and products depends in large part on our ability to continue to enter into and generate revenues from non-SBIR contract research.

Our contract research customer base includes government agencies, corporations and academic institutions. Our customers are not obligated to extend their agreements with us. In addition, we may not be successful in securing future contracts. Our customers priorities regarding funding for certain projects may change and funding resources may no longer be available at previous levels.

If we are unsuccessful in our litigation with Hansen Medical, Inc., our business may be materially harmed.

On June 22, 2007, Hansen Medical Inc., or Hansen, a company for which we had conducted certain research, filed a complaint against us in the Superior Court of the State of California, County of Santa Clara. On March 18, 2008, the complaint was amended and alleges misappropriation of trade secrets, aiding and abetting breach of fiduciary duty, unfair competition, breach of contract, conversion, intentional interference with contract, breach of implied covenant of good faith and fair dealing, declaratory judgment, and fraud. In addition to money damages in an unspecified amount, Hansen seeks, among other things, equitable relief, including an injunction against our using the allegedly misappropriated trade secrets in connection with another project of ours. We have answered the complaint and intend to defend ourselves vigorously in this matter. We also filed a counterclaim against Hansen and an amended counterclaim on March 18, 2008. Our counterclaim asserts claims for declaratory judgment, misappropriation of trade secrets, breach of contract, unfair competition under the California Business and Professional Code, breach of implied covenant of good faith and fair dealing, declaratory judgment, and unjust enrichment. We seek money damages from Hansen in an amount to be proven at trial and equitable, including declaratory, relief. In April 2008, the parties participated in a non-binding arbitration. In May 2008, the arbitrator rendered a non-binding award. In June 2008, we rejected the non-binding award, and the case is proceeding to trial on the merits. While we believe Hansen s claims are without merit, we cannot predict the ultimate outcome of this litigation.

If we do not succeed in prosecuting our claims against Hansen, or if Hansen prevails on one or more of its claims, we may not recover our damages. In addition, if Hansen is successful, we may be required to pay substantial damages, and we may lose the ability to freely use or license others to use certain of our intellectual property, any or all of which could materially harm our business.

If we are unable to manage our 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 by developing and commercializing multiple products concurrently across many industries, technologies and markets. Our ability to grow 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 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. During the most recently completed calendar quarter, the labor market, particularly for highly-specialized scientists and engineers remained tight. If we are unable to recruit a sufficient number of qualified personnel, we may be unable to staff and manage projects adequately, which may slow the rate of growth of our technology development revenue or our product development efforts.

Table of Contents

We have incurred recent losses, and because our strategy for expansion may be costly to implement, we may experience continuing losses which may be significant.

We incurred consolidated net losses of approximately $7.8 million for the year ended December 31, 2007 and $4.1 million for the nine months ending September 30, 2008. We expect to continue to incur significant additional expenses as we expand our business, 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 and our expansion strategy, 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.

If we cannot successfully transition our revenue mix from technology development 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 and higher gross margins than services-based technology development 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 technology development revenues, our ability to execute our business model or grow our business could suffer.

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 technology development 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, which are nanomaterials in the form of a carbon sphere with three metal atoms enclosed inside-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.

Our failure to attract, train and retain skilled employees 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. This fact, combined with our growth strategy and future needs for additional experienced personnel, particularly in highly specialized areas such as nanomaterial

manufacturing and innovative ultrasound 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. In particular, our Chairman, CEO and founder, Kent A. Murphy, Ph.D., is essential to our overall management as well as the development of our technologies, our culture and our strategic direction. All of our executive officers and key employees are at-will employees, and, except with respect to Kent A. Murphy, Ph.D., we do not maintain any key-person life insurance policies. The loss of any of our management or key personnel could seriously harm our business.

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

We may not qualify to participate in the Small Business Administration s, or SBA s, SBIR program or receive new SBIR awards from federal agencies in the future. In order to qualify for SBIR contracts and grants, at least 51% of our equity must be owned and controlled by U.S. citizens or permanent resident aliens, or by another entity that is at least 51% owned or controlled by U.S. citizens or permanent resident aliens, and we must have 500 or fewer employees. These eligibility criteria are applied as of the time of the award of a contract or grant. In determining whether we satisfy the 51% equity ownership requirement, agreements to merge, stock options, convertible debt and other similar instruments are given present effect by the SBA, as though the underlying securities were actually issued unless the exercisability or conversion of such securities is speculative, remote or beyond the control of the security holder. We therefore believe our outstanding options and warrants held by eligible individuals may be counted as, and our convertible debt may be excluded from, outstanding equity for purposes of meeting the 51% equity ownership requirement.

We believe that we are currently in compliance with the SBIR eligibility criteria but we cannot provide assurance that the SBA will interpret its regulations in our favor. We believe that over 60% of our equity is owned or controlled by U.S. citizens, and that we currently have fewer than 500 employees. We must be able to certify that we meet the SBIR ownership and size requirements as of the time we enter into each SBIR contract or grant, and SBA may review our size status in connection with each SBIR contract or grant. As we grow our business, it is foreseeable that we will eventually exceed the SBIR eligibility limitations and we may need to find other sources to fund our research and development efforts. If we are unsuccessful in obtaining additional contracts or funding grants because we cannot meet the eligibility requirements or if our customers decide to reduce or discontinue support of our products, we may be required to seek alternative sources of revenues or capital.

Table of Contents

The SBA could determine that, as a result of Carilion Clinic s equity ownership, the number of our employees exceeds the size limitation placed on SBA contract and SBIR grant recipients, and therefore we will not be eligible to receive future SBA contracts and SBIR grants.

In addition to the U.S. ownership eligibility criteria discussed above, to be eligible for SBA contracts and SBIR grants, the number of our employees including those of any entities that are considered to be affiliated with us, cannot exceed 500. As of September 30, 2008, we, including all of our divisions, had approximately 233 full and part time employees. However, in determining whether we are affiliated with any other entity, the SBA analyzes whether another entity controls or has the power to control us. If the SBA determines that another entity controls or has the power to control us, it will aggregate that entity s employees (and the employees of its subsidiaries and affiliates) with our own for purposes of applying the 500 employee test.

The SBA may make an affiliation determination based on stock ownership. For example, the SBA may presume that two or more entities have the power to control a company if the entities each own, control or has the power to control, less than 50 percent of the company s stock, such minority holdings are equal or approximately equal in size, and the aggregate of the minority holdings is large as compared to any other stock holding. However, this presumption may be rebutted by showing that such control or power to control does not in fact exist. As of September 30, 2008, Carilion Clinic held approximately 20.7% of our outstanding common stock, and Dr. Kent Murphy held approximately 24.0% of our outstanding common stock. Thus, applying the criteria stated above, the SBA could find that both Carilion Clinic and Dr. Murphy own less than 50% of the stock, their percentages are roughly equal, and their respective percentages are large compared to any other stock holding. We believe that the relative beneficial ownership of our individual stockholders rebuts the presumption of control by Carilion Clinic because the shares held by our executive officers and directors constitute the controlling interest in us. However, if the SBA were to make a determination that we are affiliated with Carilion Clinic, we would exceed the size limitations as Carilion Clinic has over 500 employees, and we therefore would lose eligibility for new SBA contracts, public contracts, grants and other awards that are set aside for small businesses, including SBIR grants.

We might require additional capital to support business growth, and this capital might not be available.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new products or enhance our existing products, obtain important regulatory approvals, enhance our operating infrastructure, complete our development activities, build our commercial scale manufacturing facilities and acquire complementary businesses and technologies. In addition, we have a history of net losses and are not currently profitable. In the future we may need to engage in equity or debt financings to secure additional funds to support our operations and investments in new products, if we are unable to finance such activities from the proceeds of our continuing operations.

If we raise additional funds through issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock, including shares of common stock sold in our initial public offering. 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. In addition, we may not be able to obtain continued SBIR funding, or other additional financing on terms favorable to us, if at all. In order to retain SBIR eligibility, we may be restricted in our ability to raise certain forms of equity capital from institutional investors. For example, in connection with the closing of our financing with Carilion Clinic on December 30, 2005, we were not able to raise all proceeds through the issuance of equity without potentially jeopardizing our SBIR eligibility. We therefore elected to issue debt in the amount of $5.0 million of the total $8.0 million raised in this financing to maintain SBIR eligibility. Under the terms of these notes, as amended, we agreed that we will not draw down any amount under our then-existing senior secured credit facility with First National Bank or our existing line of credit with Silicon Valley Bank, or incur additional indebtedness other than under certain limited conditions. In addition, if we lose eligibility or elect to no longer compete for SBIR contracts prior to December 30, 2012, the holder of our $5.0 million senior convertible promissory notes has the right, at its discretion, to convert some or all of the principal and interest amounts into shares of our common stock, which would result in further dilution to our existing stockholders.

If we are unable to obtain adequate financing or financing on 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.

If we are unable to secure third-party reimbursement for our healthcare products, including our EDAC QUANTIFIER medical device, 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 payors 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 increasingly 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 EDAC® QUANTIFIER product typically bill the services performed with our products to various third-party payors, such as Medicare, Medicaid and other government programs and private insurance plans. If our EDAC® QUANTIFIER is cleared for marketing in the United States by the FDA, we anticipate that Medicare reimbursement will be available for use of the device in cleared procedures. If, however, hospitals do not obtain sufficient reimbursement from third-party payors 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.

Table of Contents

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 a debt facility with Silicon Valley Bank that requires us to meet certain restrictive covenants.

In May 2008, we entered into a $10.0 million credit facility with Silicon Valley Bank, which includes a four year term debt of $5.0 million and a four-year revolving line of credit facility available for the remaining $5.0 million, based on the balance of our term loan at September 30, 2008. The interest rate on borrowings under the secured revolving facility is a floating per annum rate of one half of one percentage point above the prime interest rate. Interest on the term loan is a floating per annum rate of one percentage point above the prime interest rate. Beginning in January, 2009, we will begin to pay interest and principal monthly, so that principal is paid back ratably over 42 months. This agreement also provided a $1.0 million sub-limit for letters of credit. As part of this agreement, we provided blanket collateral of substantially all of the company s assets, and agreed to be subject to certain loan covenants, including but not limited to, financial covenants requiring the on-going attainment of certain financial ratios, and the attainment of a minimum adjusted EBITDA that increases through-out the first year of the term loan period. If we fail to maintain these ratios or attain the required EBITDA, or fail to comply with any other covenant, we could be deemed to have an Event of Default. In the case of an Event of Default, we could be required to immediately remit all outstanding funds then due under the debt facility; or prepare our collateral for sale to satisfy the amount of outstanding funds owed to Silicon Valley Bank. If there is an Event of Default and we continue in the borrowing relationship with Silicon Valley Bank, the default interest rate would increase by five percentage points over the applicable rate for the term and revolving debt facilities, which could adversely affect our cash flows.

We may be obligated to repay part of the proceeds received in connection with a grant from the City of Danville, Virginia, for failing make certain agreed upon expenditures and failing to meet certain employment obligations.

In March 2004, we received a grant of $900,000 from the City of Danville, Virginia under a Grant Agreement to support the expansion of economic and commercial growth within the City of Danville. Under the Grant Agreement, we agreed to locate a nanomaterials manufacturing and research facility and maintain its operations in the City of Danville until March 25, 2009. Our obligations under this Grant Agreement require us to incur significant expenditures in order to retain such proceeds from the grant. Specifically, we agreed under the Grant Agreement to invest at least $5.2 million in capital equipment expenditures and $1.2 million in certain facilities by September 25, 2006 and to maintain such investments in our Danville facility until March 25, 2009. We also agreed to create by September 25, 2006 at least 54 new full-time jobs at the Danville facility at an average annual wage of at least $39,000 plus benefits, and to maintain these jobs at such facility until March 25, 2009. These contractual requirements obligate us to an annual payroll obligation exceeding $2.0 million until March 25, 2009. To the extent such hiring results in salaries in excess of the required minimum wages, our annual payroll obligation could be substantially greater than $2.0 million. As of September 25, 2006, we had not fully met these capital expenditures and job milestones, and, as a result, we may be asked to repay the City of Danville a portion of the $900,000 in funds based on a formula of the pro rata shortfall of such expenditures and jobs falling below such required levels. Because of the failure to meet these milestones and the continuing obligation to maintain our investment and employees at this location through March 25, 2009, we currently have classified the full amount of the grant as a liability on our balance sheet in anticipation of potentially returning the funds.

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

We have 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 do not have direct control to manufacture our products. For example, we have engaged a third-party contract manufacturer to produce our line of tunable lasers. We also 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 the following reasons:

- we plan 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 revenue growth 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.

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. Although we do not have any sole source suppliers of materials, 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, we are aware of only a small number of manufacturers that produce the special lasers used in our optical test equipment. Moreover, none of these third-party vendors is obligated to continue to supply us with components. Our reliance on these vendors subjects us to a number of risks that could impact 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.

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

While none of our current products are 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

Table of Contents

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.

Our Products Division currently conducts 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 ranging from 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 healthcare 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 and our EDAC and EN-TACT ultrasound diagnostic devices for measuring certain medical conditions will be considered a drug and medical devices, respectively, under the Federal Food, Drug & Cosmetic Act, or FDC Act. Drugs and some medical devices are subject to rigorous preclinical testing and other approval requirements by the 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 these products. 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.

Table of Contents

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 our EDAC® or other products for clinical use in the United States, we generally must first obtain clearance from the FDA pursuant to Section 510(k) of the Food, Drug, and Cosmetic Act, which has occurred in the case of the EDAC®. Clearance under Section 510(k) requires demonstration that a new device is substantially equivalent to another device with 510(k) clearance or 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 U.S. 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 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 FDA s Quality System Regulations, or QSR. 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 medical product 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 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

Table of Contents

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;

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. As in our litigation with Hansen Medical, Inc. described in Part II, Item 1, above, in any legal proceedings relating to intellectual property, 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 such litigation could have a material adverse effect on our business and results of operations.

We also rely on trade secrets to protect our technology, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. We routinely 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.

Table of Contents

We also rely on trademarks to establish a market identity for Luna and Luna 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 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 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

Our common stock price has been volatile and we expect that the price of our common stock will fluctuate substantially in the future.

Before our initial public offering, there was no public market for our common stock, and in the future, an active public trading market may not be sustained. The public trading price for our common stock will continue to be affected by a number of factors, including:

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;

variations in our or our competitors results of operations or cash flows;

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;

commencement of, involvement in, or resolution of litigation;

any major change in our board of directors or management;

changes in governmental regulations or in the status of our regulatory approvals;

Table of Contents

announcements related to patents issued to us or our competitors and to litigation;

a lack of, limited or negative industry or security analyst coverage; and

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, our stock price could decline.

If our existing stockholders sell a large number of shares of our common stock or the public market perceives that these sales may occur, the market price of our common stock could decline.

As of the date of our initial public offering, employees and former employees holding approximately 1.8 million shares of our common stock or options exercisable for our common stock had entered into an agreement to not sell more than 20.0% of such shares in any year during the five years following the effective date of our initial public offering, provided that if any shares subject to such annual limit are not sold in a given year then such shares may be sold in subsequent years. In addition, certain members of our management holding options exercisable for approximately 2.2 million shares of our common stock had entered into an agreement not to sell more than 15.0% of such shares in any year during the five years following the effective date of such initial public offering. On January 23, 2007, certain members of our management team entered into amended and restated stock sale restriction agreements whereby such officers agreed not to sell more than a fixed number of beneficially held shares of our common stock for a two year period ending December 31, 2008. On February 27, 2008, certain members of our management team entered into a second amended and restated stock sale restriction agreement whereby such officers agreed not to sell more than a fixed number of beneficially held shares of our common stock for a two year period ending December 31, 2010. As of September 30, 2008, such officers beneficially owned an aggregate of 3,485,746 shares of our common stock, including vested and unvested options to purchase common stock, which are subject to the sale restriction agreements. We have the right to waive any of these resale restrictions for employees and management at our discretion, and in such instance, the shares would become freely tradable.

Our financial results may vary significantly from period to period, which may reduce our stock price.

Historically, our financial results have exhibited significant seasonality. For example, we typically have lower product and license revenue in the first half of the year and higher product revenue in the second half of the year. We expect such seasonality to continue. In addition, our financial results may fluctuate as a result of a number of factors, many of which are outside of our control, which may cause the market price of our common stock to fall. For these reasons, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Our financial results may be negatively affected by any of the risk factors listed in this Risk factors section and, in particular, the following risks:

a reduction of contract research funding;

decisions by government agencies, academic institutions or corporations not to exercise contract options or to modify, curtail or terminate our major contracts;

failure to estimate or control contract costs;

adverse judgments or settlements in legal disputes;

expenses related to acquisitions, mergers or joint ventures; and

other one-time financial charges.

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.

Beginning with our Annual Report for the year ending December 31, 2007, 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. Additionally, our independent registered public accounting firm will be required to issue a report on management s assessment of our internal control over financial reporting and a report on their evaluation of the operating effectiveness of our internal control over financial reporting beginning with our Annual Report for the year ending December 31, 2009.

We continue to evaluate our existing internal control over financial reporting against the standards adopted by the Public Company Accounting Oversight Board, or PCAOB. 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.

As of September 30, 2008, our directors and management collectively controlled approximately 50% of our outstanding common stock.

As of September 30, 2008, our directors and executive officers and their affiliates collectively controlled approximately 50% of our outstanding common stock. As a result, these stockholders, if they act together, will be able to influence our management and affairs and all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. You and other stockholders will have minimal influence over these actions. This concentration of ownership may 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 a takeover.

Our amended and restated certificate of incorporation and bylaws and Delaware law contain provisions that might enable our management to resist a takeover. These provisions include:

a classified board of directors;

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

Table of Contents

the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer.

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

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

(a) Unregistered Sales of Equity Securities during the Three Months Ended September 30, 2008

None.

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

On June 2, 2006, our Registration Statement on Form S-1, as amended (Reg. Nos. 333-131764) was declared effective in connection with the initial public offering of our common stock, pursuant to which we registered and directly sold an aggregate of 3,500,000 shares of our common stock at a price to the public of $6.00 per share. The offering closed on June 6, 2006, and, as a result, we received net proceeds of approximately $17.87 million (after underwriters discounts and commissions of approximately $1.47 million and additional offering-related costs of approximately $1.66 million). The managing underwriter of the offering was ThinkEquity Partners LLC. No payments for such expenses were made directly or indirectly to (i) any of our officers or directors or their associates, (ii) any persons owning 10% or more of any class of our equity securities, or (iii) any of our affiliates.

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. ***SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS***

None.

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 Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned thereunto duly authorized.

Luna Innovations Incorporated

Date: November 6, 2008

By: /s/ DALE E. MESSICK
Dale E. Messick
Chief Financial Officer
(Principal Financial and Accounting Officer

and duly authorized Officer)

24

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant. (Exhibit 3.2)
3.2(2)	Amended and Restated Bylaws of the Registrant. (Exhibit 3.4)
31.1	Certification of the Chief 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 Chief 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 Chief 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 Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference to the exhibits to the Registrant s Current Report on Form 8-K dated June 2, 2006 (file No. 000-52008). The number given in parentheses indicates the corresponding exhibit number in such Form 8-K.

(2) Incorporated by reference to the exhibits to the Registrant s Registration Statement on Form S-1, as amended, dated June 2, 2006 (file No. 333-131764). The number given in parentheses indicates the corresponding exhibit number in such Form S-1.