

**PROSPECTUS SUPPLEMENT**

Number 3

to

Prospectus dated January 30, 2009, and Prospectus Supplements dated April 13, 2009, and  
May 18, 2009

of

**NEOPROBE CORPORATION**

**11,500,000 Shares of Common Stock**

This Prospectus Supplement relates to the sale of up to 11,500,000 shares of Neoprobe Corporation common stock (the "Shares") by Fusion Capital Fund II, LLC ("Fusion Capital"). We will not receive proceeds from the sale of the Shares by Fusion Capital.

This Prospectus Supplement No. 3 includes: (1) an updated table of Security Ownership of Certain Beneficial Owners and Management reflecting the increased beneficial ownership of Neoprobe Corporation (the "Company") common stock by Platinum-Montaur Life Sciences, LLC ("Montaur") following the waiver by Montaur of provisions of the Company's (a) Series Y Warrant issued to Montaur on December 5, 2008, (b) Series A Note issued to Montaur on December 26, 2007, and (c) Series B Note issued to Montaur on April 16, 2008, which limited the beneficial ownership of more than 4.99% of the Company's common stock by Montaur; and (2) the attached Quarterly Report on Form 10-Q (the "Form 10-Q") of the Company for the quarter ended June 30, 2009, filed by the Company with the Securities and Exchange Commission on August 14, 2009. The exhibits to the Form 10-Q are not included with this Prospectus Supplement No. 3 and are not incorporated by reference herein. This Prospectus Supplement No. 3 should be read in conjunction with the prospectus supplements dated April 13, 2009, and May 18, 2009.

Our common stock is traded on the OTC Bulletin Board under the symbol "NEOP."

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS SUPPLEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus Supplement No. 3 is August 20, 2009.

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**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS  
AND MANAGEMENT**

The following table sets forth, as of August 19, 2009, certain information with respect to the beneficial ownership of shares of our common stock by: (i) each person known to us to be the beneficial owner of more than 5% of our outstanding shares of common stock, (ii) each director or nominee for director of our Company, (iii) our Chief Executive Officer and our other two highest paid executive officers during the last fiscal year, and (iv) our directors and executive officers as a group.

<b>Beneficial Owner</b>	<b>Number of Shares Beneficially Owned</b>		<b>Percent</b>
	(*)		of Class (**)
Carl J. Aschinger, Jr.	351,145	(a)	(n)
Reuven Avital	445,256	(b)	(n)
Anthony K. Blair	253,763	(c)	(n)
Kirby I. Bland, M.D.	195,000	(d)	(n)
David C. Bupp	6,930,309	(e)	8.5%
Frederick O. Cope, Ph.D.	-	(f)	(n)
Owen E. Johnson, M.D.	65,000	(g)	(n)
Brent L. Larson	687,414	(h)	1.0%
Fred B. Miller	376,000	(i)	(n)
Gordon A. Troup	25,000	(j)	(n)
J. Frank Whitley, Jr.	276,500	(k)	(n)
All directors and officers as a group (13 persons)	10,148,443	(l)(o)	12.0%
Platinum-Montaur Life Sciences, LLC	6,957,708	(m)	8.8%

(\*) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission which generally attribute beneficial ownership of securities to persons who possess sole or shared voting power and/or investment power with respect to those securities. Unless otherwise indicated, voting and investment power are exercised solely by the person named above or shared with members of such person's household.

(\*\*) Percent of class is calculated on the basis of the number of shares outstanding on August 19, 2009, plus the number of shares the person has the right to acquire within 60 days of August 19, 2009.

(a) This amount includes 140,000 shares issuable upon exercise of options which are exercisable within 60 days and 1,145 shares held in a trust account for which Mr. Aschinger is the custodian, but does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days.

- (b) This amount consists of 139,256 shares of our common stock owned by Mittai Investments Ltd. (Mittai), an investment fund under the management and control of Mr. Avital, and 185,000 shares issuable upon exercise of options which are exercisable within 60 days but does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days. The shares held by Mittai were obtained through a distribution of 2,785,123 shares previously held by Ma'Arigim Enterprise Ltd. (Ma'Arigim), another investment fund under the management and control of Mr. Avital. On February 28, 2005, Ma'Arigim distributed its shares to the partners in the fund. Mr. Avital is not an affiliate of the other fund to which the remaining 2,645,867 shares were distributed. Of the 2,785,123 shares previously held by Ma'Arigim, 2,286,712 were acquired in exchange for surrendering its shares in Cardiosonix Ltd. on December 31, 2001, in connection with our acquisition of Cardiosonix, and 498,411 were acquired by Ma'Arigim based on the satisfaction of certain developmental milestones on December 30, 2002, associated with our acquisition of Cardiosonix.
- (c) This amount includes 170,000 shares issuable upon exercise of options which are exercisable within 60 days and 33,763 shares in Mr. Blair's account in the 401(k) Plan, but it does not include 50,000 shares of unvested restricted stock and 75,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (d) This amount includes 170,000 shares issuable upon exercise of options which are exercisable within 60 days but does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (e) This amount includes 1,606,667 shares issuable upon exercise of options which are exercisable within 60 days, 770,000 warrants which are exercisable within 60 days, a promissory note convertible into 3,225,806 shares of our common stock, 213,746 shares that are held by Mr. Bupp's wife for which he disclaims beneficial ownership and 119,390 shares in Mr. Bupp's account in the 401(k) Plan, but it does not include 700,000 shares of unvested restricted stock and 233,333 shares issuable upon exercise of options which are not exercisable within 60 days.
- (f) This amount does not include 100,000 shares of unvested restricted stock and 50,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (g) This amount includes 30,000 shares issuable upon exercise of options which are exercisable within 60 days but does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (h) This amount includes 500,000 shares issuable upon exercise of options which are exercisable within 60 days and 87,414 shares in Mr. Larson's account in the 401(k) Plan, but it does not include 50,000 shares of unvested restricted stock and 75,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (i) This amount includes 245,000 shares issuable upon exercise of options which are exercisable within 60 days and 81,000 shares held by Mr. Miller's wife for which he disclaims beneficial ownership, but does not include 10,000 shares issuable upon the exercise of options which are not exercisable within 60 days.
- (j) This amount does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (k) This amount includes 245,000 shares issuable upon exercise of options which are exercisable within 60 days, but does not include 10,000 shares issuable upon exercise of options which are not exercisable within 60 days.
- (l) This amount includes 3,831,666 shares issuable upon exercise of options which are exercisable within 60 days, 770,000 warrants which are exercisable within 60 days, a promissory note convertible into 3,225,806 shares of our common stock, 295,891 shares that are held by spouses of our Directors and Officers or in trusts for which they are custodian but for which they disclaim beneficial ownership and 253,224 shares held in the 401(k) Plan on behalf of certain officers, but it does not include 920,000 shares of unvested restricted stock and 603,334 shares issuable upon the exercise of options which are not exercisable within 60 days. The Company itself is the trustee of the Neoprobe 401(k) Plan and may, as such, share investment power over common stock held in such plan. The trustee disclaims any beneficial ownership of shares held by the 401(k) Plan. The 401(k) Plan holds an aggregate total of 575,350 shares of common stock.
- (m) Based on information filed on Schedule 13G with the Securities and Exchange Commission on August 18, 2009. The number of shares beneficially owned by Platinum-Montaur Life Sciences, LLC ("Montaur"), 152 W. 57th Street, 54th Floor, New York, NY 10019 includes 3,155,681 shares issuable upon exercise of a Series Y Warrant issued to Montaur on December 5, 2008 (the "Series Y Warrant") to be exercised on or before September 30, 2009, but it does not include 17,061,538 shares of common stock issuable upon conversion of a 10% Series A Convertible Senior Secured Promissory Note issued to Montaur on December 26, 2007, as amended (the "Series A Note"), 8,333,333 shares of common stock issuable upon conversion of a 10% Series B Convertible Senior Secured Promissory Note issued to Montaur on April 16, 2008 (the "Series B Note"), 6,000,000 shares of common stock issuable upon conversion of 3,000 shares Series A 8% Cumulative Convertible Preferred Stock issued to Montaur on December 5, 2008 (the "Preferred Stock"), 6,000,000 shares of common stock issuable upon exercise of a Series W Warrant issued to Montaur on December 26, 2007, as amended (the "Series W Warrant"), 8,333,333 shares of common stock issuable upon exercise of a Series X Warrant issued to Montaur on April 16, 2008 (the "Series X Warrant"), and 2,400,000 shares of common stock issuable upon exercise of a Series AA Warrant issued to Montaur on July 24, 2009 (the "Series AA Warrant"). The Certificates of Designation of the Preferred Stock, the Series A Note, the Series B Note, the Series W Warrant, the Series X Warrant and the Series AA Warrant each provide that the holder of shares of the Preferred Stock, the Series A Note, the Series B Note, the Series W Warrant, the Series X Warrant and the Series AA Warrant, respectively, may not convert any of the preferred stock or notes or exercise any of the warrants to the extent that such conversion or exercise would result in the holder and its affiliates together beneficially owning more than 4.99% or 9.99% of the outstanding shares of Common Stock, except on 61 days' prior written notice to Neoprobe that the holder waives such limitation. Effective September 23, 2009, the 4.99% limitation, however, does not apply to shares of Common Stock issued as a dividend on the Preferred Stock or shares of Common Stock issued as interest on the Series A Note or the Series B Note.
- (n) Less than one percent.
- (o) The address of all directors and executive officers is c/o Neoprobe Corporation, 425 Metro Place North, Suite 300, Dublin, Ohio 43017-1367.
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2009

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

For the transition period from to \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 0-26520

**NEOPROBE CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware 31-1080091  
(State or other jurisdiction of incorporation or organization) (IRS Employer Identification No.)

425 Metro Place North, Suite 300, Dublin, Ohio 43017-1367  
(Address of principal executive offices) (Zip Code)

(614) 793-7500

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

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

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

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

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 76,068,106 shares of common stock, par value \$.001 per share (as of the close of business on August 7, 2009).

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**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**Neoprobe Corporation and Subsidiaries  
Consolidated Balance Sheets**

	<b>June 30, 2009 (unaudited)</b>	<b>December 31, 2008</b>
<b>ASSETS</b>		
Current assets:		
Cash	\$ 3,133,041	\$ 3,565,837
Available-for-sale securities	-	495,383
Accounts receivable, net	1,146,541	1,644,070
Inventory	1,111,412	961,861
Prepaid expenses and other	478,417	573,573
	<u>5,869,411</u>	<u>7,240,724</u>
Total current assets		
Property and equipment	2,107,647	2,060,588
Less accumulated depreciation and amortization	1,749,666	1,669,796
	<u>357,981</u>	<u>390,792</u>
Patents and trademarks	3,080,969	3,020,001
Acquired technology	237,271	237,271
	<u>3,318,240</u>	<u>3,257,272</u>
Less accumulated amortization	1,958,781	1,863,787
	<u>1,359,459</u>	<u>1,393,485</u>
Other assets	538,640	594,449
Total assets	<u>\$ 8,125,491</u>	<u>\$ 9,619,450</u>

**Continued**

**Neoprobe Corporation and Subsidiaries**  
**Consolidated Balance Sheets, continued**

	<b>June 30, 2009 (unaudited)</b>	<b>December 31, 2008</b>
<b>LIABILITIES AND STOCKHOLDERS' DEFICIT</b>		
Current liabilities:		
Accounts payable	\$ 535,807	\$ 731,220
Accrued liabilities and other	976,650	917,676
Capital lease obligations, current portion	6,945	9,084
Deferred revenue, current portion	549,301	526,619
Notes payable to finance companies	<u>35,031</u>	<u>137,857</u>
<b>Total current liabilities</b>	<b><u>2,103,734</u></b>	<b><u>2,322,456</u></b>
Capital lease obligations, net of current portion	7,550	11,095
Deferred revenue, net of current portion	455,490	490,165
Notes payable to CEO, net of discounts of \$65,554 and \$76,294, respectively	934,446	923,706
Notes payable to investors, net of discounts of \$4,759,359 and \$5,001,149, respectively	5,240,641	4,998,851
Derivative liabilities	25,557,996	853,831
Other liabilities	<u>39,334</u>	<u>45,071</u>
<b>Total liabilities</b>	<b><u>34,339,191</u></b>	<b><u>9,645,175</u></b>
Commitments and contingencies		
Preferred stock; \$.001 par value; 5,000,000 shares authorized; 3,000 Series A shares, par value \$1,000, issued and outstanding at June 30, 2009 and December 31, 2008		
	3,000,000	3,000,000
Stockholders' deficit:		
Common stock; \$.001 par value; 150,000,000 shares authorized; 73,031,986 and 70,862,641 shares outstanding at June 30, 2009 and December 31, 2008, respectively		
	73,032	70,863
Additional paid-in capital	137,989,047	145,742,044
Accumulated deficit	(167,275,779)	(148,840,015)
Unrealized gain on available-for-sale securities	<u>-</u>	<u>1,383</u>
<b>Total stockholders' deficit</b>	<b><u>(29,213,700)</u></b>	<b><u>(3,025,725)</u></b>
<b>Total liabilities and stockholders' deficit</b>	<b><u>\$ 8,125,491</u></b>	<b><u>\$ 9,619,450</u></b>

See accompanying notes to consolidated financial statements

**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statements of Operations**  
**(unaudited)**

	Three Months Ended June 30,		Six Months Ended June 30,	
	2009	2008	2009	2008
<b>Revenues:</b>				
Net sales	\$ 1,808,743	\$ 2,255,025	\$ 4,508,779	\$ 4,037,817
License and other revenue	25,000	-	50,000	-
Total revenues	<u>1,833,743</u>	<u>2,255,025</u>	<u>4,558,779</u>	<u>4,037,817</u>
<b>Cost of goods sold</b>				
	<u>587,635</u>	<u>906,670</u>	<u>1,436,169</u>	<u>1,566,677</u>
Gross profit	<u>1,246,108</u>	<u>1,348,355</u>	<u>3,122,610</u>	<u>2,471,140</u>
<b>Operating expenses:</b>				
Research and development	1,307,978	898,712	2,546,036	1,462,415
Selling, general and administrative	865,763	903,884	1,767,811	1,779,292
Total operating expenses	<u>2,173,741</u>	<u>1,802,596</u>	<u>4,313,847</u>	<u>3,241,707</u>
Loss from operations	<u>(927,633)</u>	<u>(454,241)</u>	<u>(1,191,237)</u>	<u>(770,567)</u>
<b>Other income (expense):</b>				
Interest income	3,761	18,482	13,710	29,090
Interest expense	(461,585)	(470,035)	(918,719)	(801,814)
Change in derivative liabilities	(13,730,204)	(113,442)	(12,204,839)	(500,188)
Other	(1,273)	377	(1,728)	(1,371)
Total other expense, net	<u>(14,189,301)</u>	<u>(564,618)</u>	<u>(13,111,576)</u>	<u>(1,274,283)</u>
Net loss	<u>(15,116,934)</u>	<u>(1,018,859)</u>	<u>(14,302,813)</u>	<u>(2,044,850)</u>
Preferred stock dividends	<u>(60,000)</u>	<u>-</u>	<u>(120,000)</u>	<u>-</u>
Loss attributable to common stockholders	<u>\$ (15,176,934)</u>	<u>\$ (1,018,859)</u>	<u>\$ (14,422,813)</u>	<u>\$ (2,044,850)</u>
<b>Loss per common share:</b>				
Basic	\$ (0.21)	\$ (0.01)	\$ (0.20)	\$ (0.03)
Diluted	\$ (0.21)	\$ (0.01)	\$ (0.20)	\$ (0.03)
<b>Weighted average shares outstanding:</b>				
Basic	71,316,657	68,526,573	70,908,835	67,905,581
Diluted	71,316,657	68,526,573	70,908,835	67,905,581

See accompanying notes to consolidated financial statements.



**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statement of Stockholders' Deficit**  
**(unaudited)**

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
	Shares	Amount				
Balance, December 31, 2008	70,862,641	\$ 70,863	\$145,742,044	\$(148,840,015)	\$ 1,383	\$ (3,025,725)
Effect of adopting EITF 07-5	-	-	(8,948,089)	(4,012,951)	-	(12,961,040)
Issued restricted stock	500,000	500	-	-	-	500
Cancelled restricted stock	(9,000)	(9)	9	-	-	-
Issued stock upon exercise of warrants and other	641,555	641	558,573	-	-	559,214
Issued stock upon exercise of options	170,000	170	53,580	-	-	53,750
Issued stock as payment of interest on convertible debt and dividends on preferred stock	785,907	786	410,547	-	-	411,333
Issued stock to 401(k) plan at \$0.41	80,883	81	33,392	-	-	33,473
Stock compensation expense	-	-	145,314	-	-	145,314
Paid preferred stock Issuance costs	-	-	(6,323)	-	-	(6,323)
Preferred stock dividends	-	-	-	(120,000)	-	(120,000)
Comprehensive loss:						
Net loss	-	-	-	(14,302,813)	-	(14,302,813)
Unrealized loss on available-for-sale securities	-	-	-	-	(1,383)	(1,383)
Total comprehensive loss						(14,304,196)
Balance, June 30, 2009	<u>73,031,986</u>	<u>\$ 73,032</u>	<u>\$137,989,047</u>	<u>\$(167,275,779)</u>	<u>\$ -</u>	<u>\$(29,213,700)</u>

See accompanying notes to consolidated financial statements.

**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statements of Cash Flows**  
**(unaudited)**

	<b>Six Months Ended</b>	
	<b>June 30,</b>	
	<b>2009</b>	<b>2008</b>
<b>Cash flows from operating activities:</b>		
Net loss	\$ (14,302,813)	\$ (2,044,850)
<b>Adjustments to reconcile net loss to net cash used in operating activities:</b>		
Depreciation and amortization	204,014	199,469
Amortization of debt discount and debt offering costs	364,838	333,754
Provision for bad debts	-	29,297
Issuance of common stock in payment of interest and dividends	411,333	-
Stock compensation expense	145,314	94,165
Change in derivative liabilities	12,204,839	500,188
Other	38,902	36,160
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable	497,529	434,106
Inventory	(172,788)	143,381
Prepaid expenses and other assets	101,700	147,461
Accounts payable	(195,413)	(41,676)
Accrued liabilities and other liabilities	(66,763)	(361,593)
Deferred revenue	(11,993)	(83,191)
Net cash used in operating activities	<u>(781,301)</u>	<u>(613,329)</u>
<b>Cash flows from investing activities:</b>		
Purchases of available-for-sale securities	-	(196,000)
Maturities of available-for-sale securities	494,000	-
Purchases of property and equipment	(58,652)	(44,736)
Proceeds from sales of property and equipment	251	120
Patent and trademark costs	(60,967)	(8,980)
Net cash provided by (used in) investing activities	<u>374,632</u>	<u>(249,596)</u>
<b>Cash flows from financing activities:</b>		
Proceeds from issuance of common stock	95,250	114,200
Payment of common stock offering costs	(6,544)	(500)
Payment of preferred stock offering costs	(6,323)	-
Proceeds from notes payable	-	3,000,000
Payment of debt issuance costs	-	(200,154)
Payment of notes payable	(102,826)	(106,651)
Payments under capital leases	(5,684)	(7,964)
Net cash (used in) provided by financing activities	<u>(26,127)</u>	<u>2,798,931</u>
Net (decrease) increase in cash	(432,796)	1,936,006
Cash, beginning of period	<u>3,565,837</u>	<u>1,540,220</u>
Cash, end of period	<u>\$ 3,133,041</u>	<u>\$ 3,476,226</u>

See accompanying notes to consolidated financial statements.

**Notes to Consolidated Financial Statements**  
**(unaudited)**

**1. Summary of Significant Accounting Policies**

- a. Basis of Presentation:** The information presented as of June 30, 2009 and for the three-month and six-month periods ended June 30, 2009 and June 30, 2008 is unaudited, but includes all adjustments (which consist only of normal recurring adjustments) that the management of Neoprobe Corporation (Neoprobe, the Company, or we) believes to be necessary for the fair presentation of results for the periods presented. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to the rules and regulations of the U.S. Securities and Exchange Commission. We have evaluated subsequent events through August 14, 2009, the date our consolidated financial statements were issued. The balances as of June 30, 2009 and the results for the interim periods are not necessarily indicative of results to be expected for the year. The consolidated financial statements should be read in conjunction with Neoprobe's audited consolidated financial statements for the year ended December 31, 2008, which were included as part of our Annual Report on Form 10-K.

Our consolidated financial statements include the accounts of Neoprobe, our wholly-owned subsidiary, Cardiosonix Ltd. (Cardiosonix), and our 90%-owned subsidiary, Cira Biosciences, Inc. (Cira Bio). All significant inter-company accounts were eliminated in consolidation.

- b. Financial Instruments and Fair Value:** We adopted Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurements*, for financial assets and liabilities as of January 1, 2008. SFAS No. 157 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under SFAS No. 157 are described below:

*Level 1* – Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

*Level 2* – Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly; and

*Level 3* – Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. In determining the appropriate levels, we perform a detailed analysis of the assets and liabilities that are subject to SFAS No. 157. At each reporting period, all assets and liabilities for which the fair value measurement is based on significant unobservable inputs or instruments which trade infrequently and therefore have little or no price transparency are classified as Level 3. In estimating the fair value of our derivative liabilities, we used the Black-Scholes option pricing model and, where necessary, other macroeconomic, industry and Company-specific conditions. See Note 2.

We adopted the remaining provisions of SFAS No. 157 for non-financial assets and liabilities beginning January 1, 2009. Financial Accounting Standards Board (FASB) Staff Position (FSP) FAS 157-2 deferred the effective date of SFAS No. 157 for one year relative to nonfinancial assets and liabilities that are measured at fair value, but are recognized or disclosed at fair value on a nonrecurring basis. This deferral applied to such items as indefinite-lived intangible assets and nonfinancial long-lived asset groups measured at fair value for impairment assessments. The adoption of the remaining provisions of SFAS No. 157 did not have a material impact on our consolidated results of operations or financial condition.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments:

- (1) Cash, accounts receivable, accounts payable, and accrued liabilities: The carrying amounts approximate fair value because of the short maturity of these instruments.
- (2) Available-for-sale securities: Available-for-sale securities are recorded at fair value. Unrealized holding gains and losses on available-for-sale securities are excluded from earnings and are reported as a separate component of other comprehensive income (loss) until realized. Realized gains and losses from the sale of available-for-sale securities are determined on a specific identification basis.

A decline in the market value of any available-for-sale security below cost that is deemed to be other than temporary results in a reduction in carrying amount to fair value. The impairment is charged to earnings and a new cost basis for the security is established. Premiums and discounts are amortized or accreted over the life of the related available-for-sale security as an adjustment to yield using the effective interest method. Dividend and interest income are recognized when earned.

Available-for-sale securities are accounted for on a specific identification basis. As of December 31, 2008, we held available-for-sale securities with an aggregate fair value of \$495,383, including \$1,383 of net unrealized gains recorded in accumulated other comprehensive income. As of December 31, 2008, all of our available-for-sale securities were invested in short-term certificates of deposit with maturity dates within 1 year. Available-for-sale securities were classified as current based on their maturity dates as well as our intent to use them to fund short-term working capital needs. We held no available-for-sale securities at June 30, 2009.

- (3) Notes payable to finance companies: The fair value of our debt is estimated by discounting the future cash flows at rates currently offered to us for similar debt instruments of comparable maturities by banks or finance companies. At June 30, 2009 and December 31, 2008, the carrying values of these instruments approximate fair value.
- (4) Note payable to CEO: The carrying value of our debt is presented as the face amount of the note less the unamortized discount related to the initial estimated fair value of the warrants to purchase common stock issued in connection with the note. At June 30, 2009, the note payable to our CEO had an estimated fair value of \$3.1 million. At December 31, 2008, the note payable to our CEO had an estimated fair value of \$1.8 million.
- (5) Notes payable to outside investors: The carrying value of our debt is presented as the face amount of the notes less the unamortized discounts related to the fair value of the beneficial conversion features, the initial estimated fair value of the put options embedded in the notes and the initial estimated fair value of the warrants to purchase common stock issued in connection with the notes. At June 30, 2009, the notes payable to outside investors had an estimated fair value of \$24.1 million. At December 31, 2008, the notes payable to outside investors had an estimated fair value of \$15.9 million.

## 2. Fair Value Hierarchy

The following tables set forth, by level, assets and liabilities measured at fair value on a recurring basis as of June 30, 2009 and December 31, 2008:

### Liabilities Measured at Fair Value on a Recurring Basis as of June 30, 2009

Description	Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of June 30, 2009
<i>Liabilities:</i>				
Derivative liabilities related to warrants	\$ -	\$ 14,268,574	\$ -	\$ 14,268,574
Derivative liabilities related to conversion and put options	-	-	11,289,422	11,289,422
Total derivative liabilities	<u>\$ -</u>	<u>\$ 14,268,574</u>	<u>\$ 11,289,422</u>	<u>\$ 25,557,996</u>

### Assets and Liabilities Measured at Fair Value on a Recurring Basis as of December 31, 2008

Description	Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2008
<i>Assets:</i>				
Available-for-sale securities	\$ 495,383	\$ -	\$ -	\$ 495,383
<i>Liabilities:</i>				
Derivative liabilities related to conversion and put options	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 853,831</u>	<u>\$ 853,831</u>

The following tables set forth a summary of changes in the fair value of our Level 3 liabilities for the three-month periods ended June 30, 2009 and 2008:

### Three Months Ended June 30, 2009

Description	Balance at March 31, 2009	Unrealized Losses	Purchases, Issuances and Settlements	Balance at June 30, 2009
<i>Liabilities:</i>				
Derivative liabilities related to conversion and put options	<u>\$ 5,601,681</u>	<u>\$ 5,687,741</u>	<u>\$ -</u>	<u>\$ 11,289,422</u>

**Three Months Ended June 30, 2008**

<b>Description</b>	<b>Balance at March 31, 2008</b>	<b>Unrealized Losses</b>	<b>Purchases, Issuances and Settlements</b>	<b>Balance at June 30, 2008</b>
<i>Liabilities:</i>				
Derivative liabilities related to conversion and put options	\$ 315,228	\$ 113,442	\$ 257,968	\$ 686,638

The following tables set forth a summary of changes in the fair value of our Level 3 liabilities for the six-month periods ended June 30, 2009 and 2008:

**Six Months Ended June 30, 2009**

<b>Description</b>	<b>Balance at December 31, 2008</b>	<b>Adoption of EITF 07-5 (See Note 10)</b>	<b>Unrealized Losses</b>	<b>Transfers In and/or (Out)</b>	<b>Balance at June 30, 2009</b>
<i>Liabilities:</i>					
Derivative liabilities related to conversion and put options	\$ 853,831	\$ 5,304,487	\$ 5,131,104	\$ -	\$ 11,289,422

**Six Months Ended June 30, 2008**

<b>Description</b>	<b>Balance at December 31, 2007</b>	<b>Purchases, Issuances and Settlements</b>	<b>Unrealized Losses</b>	<b>Transfers In and/or (Out)</b>	<b>Balance at June 30, 2008</b>
<i>Liabilities:</i>					
Derivative liabilities related to conversion and put options	\$ 1,599,072	\$ 257,968	\$ 229,534	\$ (1,399,936)	\$ 686,638

The unrealized gains and losses on the derivatives are classified in other expenses as a change in derivative liabilities in the statement of operations. Fair value of available-for-sale securities is determined based on a discounted cash flow analysis using current market rates. Fair value of warrant liabilities is determined based on a Black-Scholes option pricing model calculation. Fair value of conversion and put option liabilities is determined based on a probability-weighted Black-Scholes option pricing model calculation.

**3. Stock-Based Compensation**

We account for stock-based compensation in accordance with SFAS No. 123(R), *Share-Based Payment*. At June 30, 2009, we have three stock-based compensation plans. Under the Amended and Restated Stock Option and Restricted Stock Purchase Plan (the Amended Plan), the 1996 Stock Incentive Plan (the 1996 Plan), and the Second Amended and Restated 2002 Stock Incentive Plan (the 2002 Plan), we may grant incentive stock options, nonqualified stock options, and restricted stock awards to full-time employees, and nonqualified stock options and restricted stock awards may be granted to our consultants and agents. Total shares authorized under each plan are 2 million shares, 1.5 million shares and 7 million shares, respectively. Although options are still outstanding under the Amended Plan and the 1996 Plan, these plans are considered expired and no new grants may be made from them. Under all three plans, the exercise price of each option is greater than or equal to the closing market price of our common stock on the day prior to the date of the grant.

Options granted under the Amended Plan, the 1996 Plan and the 2002 Plan generally vest on an annual basis over one to three years. Outstanding options under the plans, if not exercised, generally expire ten years from their date of grant or 90 days from the date of an optionee's separation from employment with the Company. We issue new shares of our common stock upon exercise of stock options.

Compensation cost arising from stock-based awards is recognized as expense using the straight-line method over the vesting period. As of June 30, 2009, there was approximately \$281,000 of total unrecognized compensation cost related to unvested stock-based awards, which we expect to recognize over remaining weighted average vesting terms of 0.7 years. For the three-month periods ended June 30, 2009 and 2008, our total stock-based compensation expense was approximately \$75,000 and \$46,000, respectively. For the six-month periods ended June 30, 2009 and 2008, our total stock-based compensation expense was approximately \$145,000 and \$94,000, respectively. We have not recorded any income tax benefit related to stock-based compensation in any of the three-month and six-month periods ended June 30, 2009 and 2008.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model to value share-based payments. Expected volatilities are based on the Company's historical volatility, which management believes represents the most accurate basis for estimating expected volatility under the current circumstances. Neoprobe uses historical data to estimate forfeiture rates. The expected term of options granted is based on the vesting period and the contractual life of the options. The risk-free rate is based on the U.S. Treasury yield in effect at the time of the grant.

A summary of stock option activity under our stock option plans as of June 30, 2009, and changes during the six-month period then ended is presented below:

<b>Six Months Ended June 30, 2009</b>				
	<b>Number of Options</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at beginning of period	5,619,500	\$ 0.40		
Granted	283,000	0.59		
Exercised	(170,000)	0.32		
Forfeited	(10,000)	0.61		
Expired	(99,000)	1.14		
Outstanding at end of period	<u>5,623,500</u>	<u>\$ 0.40</u>	<u>5.2 years</u>	<u>\$ 3,104,715</u>
Exercisable at end of period	<u>4,818,167</u>	<u>\$ 0.39</u>	<u>4.6 years</u>	<u>\$ 2,707,988</u>

A summary of the status of our unvested restricted stock as of June 30, 2009, and changes during the six-month period then ended is presented below:

	<b>Six Months Ended June 30, 2009</b>	
	<b>Number of Shares</b>	<b>Weighted Average Grant-Date Fair Value</b>
Unvested at beginning of period	473,000	\$ 0.37
Granted	500,000	0.60
Vested	-	-
Forfeited	(9,000)	0.68
Unvested at end of period	<u>964,000</u>	<u>\$ 0.49</u>

Restricted shares generally vest upon occurrence of a specific event or achievement of goals as defined in the grant agreements. As a result, we have recorded compensation expense related to grants of restricted stock based on management's estimates of the probable dates of the vesting events. See Note 15(a).

#### 4. Comprehensive Loss

Due to our net operating loss position, there are no income tax effects on comprehensive loss components for the three-month and six-month periods ended June 30, 2009 and 2008.

	<b>Three Months Ended June 30, 2009</b>	<b>Three Months Ended June 30, 2008</b>
Net loss	\$ (15,116,934)	\$ (1,018,859)
Unrealized losses on securities	-	(456)
Other comprehensive loss	<u>\$ (15,116,934)</u>	<u>\$ (1,019,315)</u>

  

	<b>Six Months Ended June 30, 2009</b>	<b>Six Months Ended June 30, 2008</b>
Net loss	\$ (14,302,813)	\$ (2,044,850)
Unrealized losses on securities	(1,383)	(456)
Other comprehensive loss	<u>\$ (14,304,196)</u>	<u>\$ (2,045,306)</u>

#### 5. Earnings (Loss) Per Share

Basic earnings (loss) per share is calculated by dividing net income (loss) by the weighted-average number of common shares and participating securities outstanding during the period. Diluted earnings (loss) per share reflects additional common shares that would have been outstanding if dilutive potential common shares had been issued. Potential common shares that may be issued by the Company include convertible securities, options and warrants, if dilutive.



The following table sets forth the reconciliation of the weighted average number of common shares outstanding to those used to compute basic and diluted earnings (loss) per share for the three-month and six-month periods ended June 30, 2009 and 2008:

	<b>Three Months Ended June 30, 2009</b>		<b>Three Months Ended June 30, 2008</b>	
	<b>Basic Earnings Per Share</b>	<b>Diluted Earnings Per Share</b>	<b>Basic Earnings Per Share</b>	<b>Diluted Earnings Per Share</b>
Outstanding shares	73,031,986	73,031,986	69,115,058	69,115,058
Effect of weighting changes in outstanding shares	(751,329)	(751,329)	(138,485)	(138,485)
Unvested restricted stock	(964,000)	(964,000)	(450,000)	(450,000)
Adjusted shares	<u>71,316,657</u>	<u>71,316,657</u>	<u>68,526,573</u>	<u>68,526,573</u>

  

	<b>Six Months Ended June, 2009</b>		<b>Six Months Ended June 30, 2008</b>	
	<b>Basic Earnings Per Share</b>	<b>Diluted Earnings Per Share</b>	<b>Basic Earnings Per Share</b>	<b>Diluted Earnings Per Share</b>
Outstanding shares	73,031,986	73,031,986	69,115,058	69,115,058
Effect of weighting changes in outstanding shares	(1,159,151)	(1,159,151)	(759,477)	(759,477)
Unvested restricted stock	(964,000)	(964,000)	(450,000)	(450,000)
Adjusted shares	<u>70,908,835</u>	<u>70,908,835</u>	<u>67,905,581</u>	<u>67,905,581</u>

Earnings (loss) per common share for the three-month and six-month periods ended June 30, 2009 and 2008 excludes the effects of 58,796,178 and 50,364,050 common share equivalents, respectively, since such inclusion would be anti-dilutive. The excluded shares consist of common shares issuable upon exercise of outstanding stock options and warrants, or upon the conversion of convertible debt and convertible preferred stock.

Effective January 1, 2009, we were required to adopt FASB FSP Emerging Issues Task Force (EITF) 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions are Participating Securities*. FSP EITF 03-6-1 requires that unvested stock awards which contain nonforfeitable rights to dividends or dividend equivalents, whether paid or unpaid (referred to as “participating securities”), be included in the number of shares outstanding for both basic and diluted earnings per share calculations. Under FSP EITF 03-6-1, the Company’s unvested restricted stock is considered a participating security. All prior period earnings per share data presented are required to be adjusted retrospectively to conform to the provisions of the FSP. In the event of a net loss, the participating securities are excluded from the calculation of both basic and diluted earnings per share. Due to our net loss, 964,000 and 450,000 shares of unvested restricted stock were excluded in determining basic and diluted loss per share for the three-month and six-month periods ended June 30, 2009 and 2008, respectively.

## 6. Inventory

From time to time, we capitalize certain inventory costs associated with our Lymphoseek<sup>®</sup> product prior to regulatory approval and product launch based on management’s judgment of probable future commercial use and net realizable value of the inventory. We could be required to permanently write down previously capitalized costs related to pre-approval or pre-launch inventory upon a change in such judgment, due to a denial or delay of approval by regulatory bodies, a delay in commercialization, or other potential factors. Conversely, our gross margins may be favorably impacted if some or all of the inventory previously written down becomes available and is used for commercial sale. During the three-month and six-month periods ended June 30, 2009 and 2008, we did not capitalize any inventory costs associated with our Lymphoseek product.

The components of net inventory are as follows:

	<b>June 30, 2009 (unaudited)</b>	<b>December 31, 2008</b>
Materials and component parts	\$ 329,598	\$ 380,912
Finished goods	781,814	580,949
<b>Total</b>	<b><u>\$ 1,111,412</u></b>	<b><u>\$ 961,861</u></b>

## 7. Intangible Assets

The major classes of intangible assets are as follows:

	<b>June 30, 2009</b>			<b>December 31, 2008</b>	
	<b>Wtd Avg Life</b>	<b>Gross Carrying Amount</b>	<b>Accumulated Amortization</b>	<b>Gross Carrying Amount</b>	<b>Accumulated Amortization</b>
Patents and trademarks	7.3 yrs	\$ 3,080,969	\$ 1,721,510	\$ 3,020,001	\$ 1,626,516
Acquired technology	0 yrs	237,271	237,271	237,271	237,271
<b>Total</b>		<b><u>\$ 3,318,240</u></b>	<b><u>\$ 1,958,781</u></b>	<b><u>\$ 3,257,272</u></b>	<b><u>\$ 1,863,787</u></b>

The estimated amortization expense for the next five fiscal years is as follows:

	<b>Estimated Amortization Expense</b>
For the year ended 12/31/2009	\$ 170,957
For the year ended 12/31/2010	170,341
For the year ended 12/31/2011	169,224
For the year ended 12/31/2012	168,885
For the year ended 12/31/2013	168,675

## 8. Product Warranty

We warrant our products against defects in design, materials, and workmanship generally for a period of one year from the date of sale to the end customer, except in cases where the product has a limited use as designed. Our accrual for warranty expenses is adjusted periodically to reflect actual experience and is included in accrued liabilities on the consolidated balance sheets. Our primary marketing partner, Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company, also reimburses us for a portion of warranty expense incurred based on end customer sales they make during a given fiscal year. Payments charged against the reserve are disclosed net of EES' estimated reimbursement.

The activity in the warranty reserve account for the three-month and six-month periods ended June 30, 2009 and 2008 is as follows:

	<b>Three Months Ended</b>		<b>Six Months Ended</b>	
	<b>June 30,</b>		<b>June 30,</b>	
	<b>2009</b>	<b>2008</b>	<b>2009</b>	<b>2008</b>
Warranty reserve at beginning of period	\$ 79,372	\$ 81,513	\$ 72,643	\$ 115,395
Provision for warranty claims and changes in reserve for warranties	18,583	23,998	55,152	9,962
Payments charged against the reserve	(26,543)	(17,832)	(56,383)	(37,678)
Warranty reserve at end of period	<u>\$ 71,412</u>	<u>\$ 87,679</u>	<u>\$ 71,412</u>	<u>\$ 87,679</u>

## 9. Convertible Securities

In July 2007, David C. Bupp, our President and CEO, and certain members of his family (the Bupp Investors) purchased a \$1.0 million convertible note (the Bupp Note) and warrants. The Bupp Note bears interest at 10% per annum, had an original term of one year and is repayable in whole or in part with no penalty. The note is convertible, at the option of the Bupp Investors, into shares of our common stock at a price of \$0.31 per share, a 25% premium to the average closing market price of our common stock for the 5 days preceding the closing of the transaction. As part of this transaction, we issued the Bupp Investors Series V Warrants to purchase 500,000 shares of our common stock at an exercise price of \$0.31 per share, expiring in July 2012. The value of the beneficial conversion feature of the note was estimated at \$86,000 based on the effective conversion price at the date of issuance. The fair value of the warrants issued to the investors was approximately \$80,000 on the date of issuance and was determined using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 4.95%, volatility of 105% and no expected dividend rate. The value of the beneficial conversion feature and the fair value of the warrants issued to the investors were recorded as discounts on the note. We incurred \$43,000 of costs related to completing the Bupp financing, which were recorded in other assets. The discounts and the deferred debt issuance costs were being amortized over the term of the note using the effective interest method.

In December 2007, we executed a Securities Purchase Agreement (SPA) with Platinum Montaur Life Sciences, LLC (Montaur), pursuant to which we issued Montaur: (1) a 10% Series A Convertible Senior Secured Promissory Note in the principal amount of \$7,000,000, due December 26, 2011 (the Series A Note); and (2) a Series W Warrant to purchase 6,000,000 shares of our common stock at an exercise price of \$0.32 per share, expiring in December 2012 (the Series W Warrant). Additionally, pursuant to the terms of the SPA: (1) upon commencement of the Phase 3 clinical studies of Lymphoseek, in April 2008, we issued Montaur a 10% Series B Convertible Senior Secured Promissory Note, due December 26, 2011 (the Series B Note, and hereinafter referred to collectively with the Series A Note as the Montaur Notes), and a five-year warrant to purchase an amount of common stock equal to the number of shares into which Montaur may convert the Series B Note, at an exercise price of 115% of the conversion price of the Series B Note (the Series X Warrant), for an aggregate purchase price of \$3,000,000; and (2) upon obtaining 135 vital blue dye lymph nodes from patients with breast cancer or melanoma who completed surgery with the injection of the drug in a Phase 3 clinical trial of Lymphoseek in December 2008, we issued Montaur 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock (the Preferred Stock) and a five-year warrant to purchase an amount of common stock equal to the number of shares into which Montaur may convert the Preferred Stock, at an exercise price of 115% of the conversion price of the Preferred Stock (the Series Y Warrant, and hereinafter referred to collectively with the Series W Warrant and Series X Warrant as the Montaur Warrants), also for an aggregate purchase price of \$3,000,000.

In accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, the conversion option and two put options associated with the Series A Note were considered derivative instruments and were required to be bifurcated from the Series A Note and accounted for separately. In addition, in accordance with SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*, the Series W Warrant was accounted for as a liability due to the existence of certain provisions in the instrument. As a result, we recorded a total aggregate derivative liability of \$2.6 million on the date of issuance of the Series A Note and Series W Warrant. The fair value of the bifurcated conversion option and put options was approximately \$1.45 million on the date of issuance. The fair value of the Series W Warrant was approximately \$1.15 million on the date of issuance and was determined using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.7%, volatility of 94% and no expected dividend rate.

On March 14, 2008, Neoprobe and Montaur executed amendments to the Series A Note and the Series W Warrant. The amendments eliminated certain minor cash-based penalty provisions in the Series A Note and Series W Warrant which entitled the holders to different compensation than our common shareholders under certain circumstances and qualifying Triggering Events. The provisions that were eliminated and/or modified were the provisions that led to the derivative accounting treatment for the embedded conversion option in the Series A Note and the Series W Warrant. The effect of marking the conversion option and warrant liabilities to market at March 14, 2008 resulted in an increase in the estimated fair value of the conversion option and warrant liabilities of \$381,000 which was recorded as non-cash expense during the first quarter of 2008. The estimated fair value of the conversion option and warrant liabilities of \$2.9 million was reclassified to additional paid-in capital during the first quarter of 2008 as a result of the amendments. The estimated fair value of the put option liabilities related to the Series A Note of \$360,000 remained classified as derivative liabilities. The initial aggregate fair value of the conversion option and the put options related to the Series A Note and the fair value of the Series W Warrant of \$2.6 million were recorded as a discount on the note and are being amortized over the term of the note using the effective interest method.

In April 2008, we completed the second closing under the December 2007 Montaur SPA, as amended, pursuant to which we issued Montaur a 10% Series B Convertible Senior Secured Promissory Note in the principal amount of \$3,000,000, due December 26, 2011; and a Series X Warrant to purchase 8,333,333 shares of our common stock at an exercise price of \$0.46 per share, expiring in April 2013. The two put options related to the Series B Note were considered derivative instruments and were required to be bifurcated from the Series B Note and accounted for separately. The fair value of the bifurcated put options was approximately \$258,000 on the date of issuance. The value of the beneficial conversion feature of the Series B Note was estimated at \$1.44 million based on the effective conversion price at the date of issuance. The fair value of the Series X Warrant was approximately \$1.28 million on the date of issuance and was determined using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.6%, volatility of 95% and no expected dividend rate. The initial aggregate fair value of the beneficial conversion feature and put options related to the Series B Note, and the fair value of the Series X Warrant of \$2.98 million were recorded as discounts on the note and are being amortized over the term of the note using the effective interest method. We incurred \$188,000 of costs related to completing the second Montaur financing, which were recorded in other assets on the consolidated balance sheet. The deferred financing costs are being amortized using the effective interest method over the term of the note.

In December 2008, after we obtained 135 vital blue dye lymph nodes from patients who had completed surgery and the injection of Lymphoseek in a Phase 3 clinical trial in patients with breast cancer or melanoma, we issued Montaur 3,000 shares of our 8% Preferred Stock and a five-year Series Y warrant to purchase 6,000,000 shares of our common stock, at an exercise price of \$0.575 per share, for an aggregate purchase price of \$3,000,000. The "Liquidation Preference Amount" for the Preferred Stock is \$1,000 and the "Conversion Price" of the Preferred Stock was set at \$0.50 on the date of issuance, thereby making the shares of Preferred Stock convertible into an aggregate 6,000,000 shares of our common stock, subject to adjustment as described in the Certificate of Designations. The value of the beneficial conversion feature of the Preferred Stock was estimated at \$1.55 million based on the effective conversion price at the date of issuance. The put option was considered a derivative instrument and was required to be bifurcated from the Preferred Stock and accounted for separately. The fair value of the bifurcated put option was approximately \$216,000 on the date of issuance. The fair value of the Series Y warrant was approximately \$2.07 million on the date of issuance and was determined using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 1.7%, volatility of 74% and no expected dividend rate. The relative fair value of the warrant, the amount recorded to equity in accordance with Accounting Principles Board Opinion No. 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*, was \$1.13 million.

In accordance with EITF Topic D-98, *Classification and Measurement of Redeemable Securities*, the Preferred Stock was classified as temporary equity as the shares are subject to redemption under the contingent put option. The initial intrinsic value of the beneficial conversion feature and put option related to the Preferred Stock and the initial relative fair value of the Series Y warrant of \$1.13 million were recorded as deemed distributions and added to the accumulated deficit. We incurred \$180,000 of costs related to completing the third Montaur financing, which were recorded as a reduction of additional paid-in capital on the consolidated balance sheet.

In connection with the SPA, Montaur requested that the term of the \$1.0 million Bupp Note be extended approximately 42 months or until at least one day following the maturity date of the Montaur Notes. In consideration for the Bupp Investors' agreement to extend the term of the Bupp Note pursuant to an Amendment to the Bupp Purchase Agreement, dated December 26, 2007, we agreed to provide security for the obligations evidenced by the Amended 10% Convertible Note in the principal amount of \$1,000,000, due December 31, 2011, executed by Neoprobe in favor of the Bupp Investors (the Amended Bupp Note), under the terms of a Security Agreement, dated December 26, 2007, by and between Neoprobe and the Bupp Investors (the Bupp Security Agreement). As further consideration for extending the term of the Bupp Note, we issued the Bupp Investors Series V Warrants to purchase 500,000 shares of our common stock at an exercise price of \$0.32 per share, expiring in December 2012. The fair value of the warrants issued to the Bupp Investors was approximately \$96,000 on the date of issuance and was determined using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.72%, volatility of 94% and no expected dividend rate. The fair value of the warrants was recorded as a discount on the note and is being amortized over the term of the note using the effective interest method. We treated the amendment to the Bupp Note as an extinguishment of debt for accounting purposes. As such, the remaining discount resulting from the value of the beneficial conversion feature and the fair value of the warrants and the remaining unamortized deferred financing costs associated with the original note were written off as a loss on extinguishment of debt in December 2007.

Effective January 1, 2009, we adopted EITF Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock*, which clarified the determination of whether equity-linked instruments (or embedded features), such as our convertible securities and warrants to purchase our common stock, are considered indexed to our own stock. As a result of adopting EITF Issue No. 07-5, certain embedded features of our convertible securities, as well as warrants to purchase our common stock, that were previously treated as equity have been considered derivative liabilities since the beginning of 2009. See Note 10 and Note 15(a).

During the three-month periods ended June 30, 2009 and 2008, we recorded interest expense of \$156,000 and \$170,000, respectively, related to amortization of the debt discount related to our convertible notes. During the six-month periods ended June 30, 2009 and 2008, we recorded interest expense of \$307,000 and \$330,000, respectively, related to amortization of the debt discount related to our convertible notes. During the three-month periods ended June 30, 2009 and 2008, we recorded interest expense of \$29,000 and \$27,000, respectively, related to amortization of the deferred financing costs related to our convertible notes. During the six-month periods ended June 30, 2009 and 2008, we recorded interest expense of \$58,000 and \$52,000, respectively, related to amortization of the deferred financing costs related to our convertible notes.

## 10. Derivative Instruments

We account for derivative instruments in accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which provides accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts. We do not use derivative instruments for hedging of market risks or for trading or speculative purposes. Effective January 1, 2009, we adopted EITF Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock*. EITF Issue No. 07-5 clarified the determination of whether equity-linked instruments (or embedded features), such as our convertible securities and warrants to purchase our common stock, are considered indexed to our own stock, which would qualify as a scope exception under SFAS No. 133. As a result of adopting EITF Issue No. 07-5, certain embedded features of our convertible securities, as well as warrants to purchase our common stock, that were previously treated as equity have been considered derivative liabilities since the beginning of 2009.

The impact of adopting EITF Issue No. 07-5 is summarized in the following table:

	December 31, 2008	Impact of Adopting EITF Issue No. 07-5	January 1, 2009
Other assets	\$ 594,449	\$ 2,104	\$ 596,553
Total assets	<u>\$ 9,619,450</u>		<u>\$ 9,621,554</u>
Notes payable to investors, net of discounts	\$ 4,998,851	(54,396)	\$ 4,944,455
Derivative liabilities	853,831	13,017,540	13,871,371
Total liabilities	<u>\$ 9,645,175</u>		<u>\$ 22,608,319</u>
Additional paid-in capital	\$ 145,742,044	(8,948,089)	\$ 136,793,955
Accumulated deficit	(148,840,015)	(4,012,951)	(152,852,966)
Total stockholders' deficit	<u>\$ (3,025,725)</u>		<u>\$ (15,986,765)</u>

*Convertible Notes* – other assets increased \$2,104, notes payable to investors, net of discount, increased \$518,229, derivative liabilities increased \$4,146,392, additional paid-in capital decreased \$2,843,781, and accumulated deficit increased \$1,818,736.

*Convertible Preferred Stock* – derivative liabilities increased \$1,158,095, additional paid-in capital decreased \$1,550,629, and accumulated deficit decreased \$392,534.

*Warrants* – notes payable to investors, net of discount, decreased \$572,625, derivative liabilities increased \$7,713,053, additional paid-in capital decreased \$4,553,679, and accumulated deficit increased \$2,586,749.

The estimated fair values of the derivative liabilities are recorded as non-current liabilities on the consolidated balance sheet. Changes in the estimated fair values of the derivative liabilities are recorded in the consolidated statement of operations. The effect of marking the derivative liabilities to market at March 31, 2009 resulted in a net decrease in the estimated fair values of the derivative liabilities of \$1.5 million which was recorded as non-cash income during the first quarter of 2009. The effect of marking the derivative liabilities to market at June 30, 2009 resulted in a net increase in the estimated fair values of the derivative liabilities of \$13.7 million which was recorded as non-cash expense during the second quarter of 2009. The total estimated fair value of the derivative liabilities was \$25.6 million as of June 30, 2009. See Notes 9 and 15(a).

## 11. Stock Warrants

During the first six months of 2009, David C. Bupp, our President and CEO, exercised 50,000 Series Q Warrants in exchange for issuance of 50,000 shares of our common stock, resulting in gross proceeds of \$25,000. The remaining 325,000 Series Q Warrants held by Mr. Bupp expired during the period. During the same period, a Bupp Investor exercised 50,000 Series V Warrants in exchange for issuance of 50,000 shares of our common stock, resulting in gross proceeds of \$16,000. Also during the first six months of 2009, certain outside investors exercised a total of 1,010,000 Series U Warrants on a cashless basis in exchange for issuance of 541,555 shares of our common stock.

At June 30, 2009, there are 22.0 million warrants outstanding to purchase our common stock. The warrants are exercisable at prices ranging from \$0.31 to \$0.85 per share with a weighted average exercise price of \$0.45 per share. See Note 15(b).

## **12. Income Taxes**

We account for uncertainty in income taxes in accordance with Financial Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes – an Interpretation of FASB Statement No. 109*. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in the financial statements in accordance with SFAS No. 109, *Accounting for Income Taxes*. FIN 48 also prescribes a recognition threshold and measurement model for the financial statement recognition of a tax position taken, or expected to be taken, and provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. No adjustment was made to the beginning retained earnings balance as the ultimate deductibility of all tax positions is highly certain, although there is uncertainty about the timing of such deductibility. As a result, no liability for uncertain tax positions was recorded as of June 30, 2009. Should we need to accrue interest or penalties on uncertain tax positions, we would recognize the interest as interest expense and the penalties as a selling, general and administrative expense.

## **13. Segment and Subsidiary Information**

We report information about our operating segments using the “management approach” in accordance with SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*. This information is based on the way management organizes and reports the segments within the enterprise for making operating decisions and assessing performance. Our reportable segments are identified based on differences in products, services and markets served. There were no inter-segment sales. We own or have rights to intellectual property involving two primary types of medical device products, including oncology instruments currently used primarily in the application of sentinel lymph node biopsy, and blood flow measurement devices. We also own or have rights to intellectual property related to several drug and therapy products.

The information in the following table is derived directly from each reportable segment's financial reporting.

<i>(\$ amounts in thousands)</i>					
<b>Three Months Ended June 30, 2009</b>	<b>Oncology Devices</b>	<b>Blood Flow Devices</b>	<b>Drug and Therapy Products</b>	<b>Corporate</b>	<b>Total</b>
<b>Net sales:</b>					
United States <sup>1</sup>	\$ 1,715	\$ 7	\$ -	\$ -	\$ 1,722
International	64	23	-	-	87
License and other revenue	25	-	-	-	25
Research and development expenses	344	4	960	-	1,308
Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup>	35	15	-	713	763
Depreciation and amortization	39	48	1	15	103
Income (loss) from operations	810	(49)	(961)	(728)	(928)
Other income (expenses) <sup>4</sup>	-	-	-	(14,189)	(14,189)

<b>Total assets, net of depreciation and amortization:</b>					
United States operations	2,036	511	23	4,282	6,852
Israeli operations (Cardiosonix Ltd.)	-	1,273	-	-	1,273
Capital expenditures	1	-	-	17	18

<i>(\$ amounts in thousands)</i>					
<b>Three Months Ended June 30, 2008</b>	<b>Oncology Devices</b>	<b>Blood Flow Devices</b>	<b>Drug and Therapy Products</b>	<b>Corporate</b>	<b>Total</b>
<b>Net sales:</b>					
United States <sup>1</sup>	\$ 2,151	\$ 4	\$ -	\$ -	\$ 2,154
International	21	80	-	-	101
Research and development expenses	286	52	561	-	899
Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup>	-	-	-	800	800
Depreciation and amortization	31	63	-	10	104
Income (loss) from operations <sup>3</sup>	996	(78)	(561)	(810)	(454)
Other income (expenses) <sup>4</sup>	-	-	-	(565)	(565)
<b>Total assets, net of depreciation and amortization:</b>					
United States operations	1,705	596	179	4,516	6,996
Israeli operations (Cardiosonix Ltd.)	-	1,462	-	-	1,462
Capital expenditures	-	-	18	11	29



<i>(\$ amounts in thousands)</i>		<b>Oncology Devices</b>	<b>Blood Flow Devices</b>	<b>Drug and Therapy Products</b>	<b>Corporate</b>	<b>Total</b>
<b>Six Months Ended June 30, 2009</b>						
Net sales:						
United States <sup>1</sup>	\$	4,268	\$ 36	\$ -	\$ -	\$ 4,304
International		168	37	-	-	205
License and other revenue		50	-	-	-	50
Research and development expenses		637	21	1,888	-	2,546
Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup>		69	29	-	1,466	1,564
Depreciation and amortization		76	96	2	30	204
Income (loss) from operations		2,301	(106)	(1,890)	(1,496)	(1,191)
Other income (expenses) <sup>4</sup>		-	-	-	(13,112)	(13,112)
Total assets, net of depreciation and amortization:						
United States operations		2,036	511	23	4,282	6,852
Israeli operations (Cardiosonix Ltd.)		-	1,273	-	-	1,273
Capital expenditures		1	-	-	58	59

<i>(\$ amounts in thousands)</i>		<b>Oncology Devices</b>	<b>Blood Flow Devices</b>	<b>Drug and Therapy Products</b>	<b>Corporate</b>	<b>Total</b>
<b>Six Months Ended June 30, 2008</b>						
Net sales:						
United States <sup>1</sup>	\$	3,882	\$ 7	\$ -	\$ -	\$ 3,889
International		32	117	-	-	149
Research and development expenses		451	119	892	-	1,462
Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup>		-	-	-	1,580	1,580
Depreciation and amortization		54	126	-	20	199
Income (loss) from operations <sup>3</sup>		1,927	(206)	(892)	(1,599)	(771)
Other income (expenses) <sup>4</sup>		-	-	-	(1,274)	(1,274)
Total assets, net of depreciation and amortization:						
United States operations		1,705	596	179	4,516	6,996
Israeli operations (Cardiosonix Ltd.)		-	1,462	-	-	1,462
Capital expenditures		2	-	18	25	45

<sup>1</sup> All sales to EES are made in the United States. EES distributes the product globally through its international affiliates.

<sup>2</sup> General and administrative expenses, excluding depreciation and amortization, represent costs that relate to the general administration of the Company and as such are not currently allocated to our individual reportable segments. Beginning in the third quarter of 2008, marketing and selling costs are allocated to our individual segments.

<sup>3</sup> Income (loss) from operations does not reflect the allocation of selling, general and administrative expenses, excluding depreciation and amortization, to the operating segments.

<sup>4</sup> Amounts consist primarily of interest income, interest expense and changes in derivative liabilities which are not currently allocated to our individual reportable segments.

#### 14. Supplemental Disclosure for Statements of Cash Flows

During the six-month periods ended June 30, 2009 and 2008, we paid interest aggregating \$137,000 and \$477,000, respectively. During the six-month periods ended June 30, 2009 and 2008, we transferred \$23,000 and \$45,000, respectively, of inventory to fixed assets related to the creation and maintenance of a pool of service loaner equipment. During the six-month period ended June 30, 2008, we purchased equipment under a capital lease totaling \$20,000. During the six-month period ended June 30, 2009, we issued 785,907 shares of our common stock as payment of interest on our convertible debt and dividends on our convertible preferred stock. During the six-month periods ended June 30, 2009 and 2008, we issued 80,883 and 114,921 shares of common stock, respectively, as matching contributions to our 401(k) Plan.

## 15. Subsequent Events

- a. Convertible Securities and Derivative Liabilities:** On July 24, 2009, we entered into a Securities Amendment and Exchange Agreement with Montaur, pursuant to which Montaur agreed to the amendment and restatement of the terms of the Montaur Notes, the Preferred Stock, and the Montaur Warrants. The Series A Note was amended to grant Montaur conversion rights with respect to the \$3.5 million portion of the Series A Note that was previously not convertible. The newly convertible portion of the Series A Note is convertible at \$0.97 per share. The amendments also eliminated certain price reset features of the Montaur Notes, the Preferred Stock and the Montaur Warrants that had created significant non-cash derivative liabilities on the Company's balance sheet. In conjunction with this transaction, we issued Montaur a Series AA Warrant to purchase 2.4 million shares of our common stock at an exercise price of \$0.97 per share, expiring in July 2014.

The changes in terms of the Montaur Notes, the Preferred Stock and the Montaur Warrants will be treated as an extinguishment of debt for accounting purposes. The Company will record an additional \$5.6 million in mark-to-market adjustments related to the increase in the Company's common stock from June 30 to July 24, 2009. As a result of the extinguishment treatment associated with the elimination of the price reset features, the Company will also record \$16.2 million in non-cash loss on the extinguishment and will reclassify \$27.0 million in derivative liabilities to additional paid-in capital. Following the extinguishment, the Company's balance sheet will reflect the face value of the \$10 million due to Montaur pursuant to the Montaur Notes. See Notes 9 and 10.

- b. Warrant Exercises:** On July 24, 2009, Montaur exercised 2,844,319 Series Y Warrants in exchange for issuance of 2,844,319 shares of our common stock, resulting in gross proceeds of \$1.6 million. In addition, Montaur agreed to exercise their remaining 3,155,681 Series Y Warrants no later than September 30, 2009, which will result in additional gross proceeds of \$1.8 million. See Note 11.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

### Forward-Looking Statements

*From time to time, our representatives and we may make written or verbal forward-looking statements, including statements contained in this report and other Company filings with the SEC and in our reports to stockholders. Statements that relate to other than strictly historical facts, such as statements about our plans and strategies, expectations for future financial performance, new and existing products and technologies, anticipated clinical and regulatory pathways, and markets for our products are forward-looking statements. Generally, the words "believe," "expect," "intend," "estimate," "anticipate," "will" and other similar expressions identify forward-looking statements. The forward-looking statements are and will be based on our then-current views and assumptions regarding future events and operating performance, and speak only as of their dates. Investors are cautioned that such statements involve risks and uncertainties that could cause actual results to differ materially from historical or anticipated results due to many factors including, but not limited to, our continuing operating losses, uncertainty of market acceptance of our products, reliance on third party manufacturers, accumulated deficit, future capital needs, uncertainty of capital funding, dependence on limited product line and distribution channels, competition, limited marketing and manufacturing experience, risks of development of new products, regulatory risks, and other risks detailed in our most recent Annual Report on Form 10-K and other SEC filings. We undertake no obligation to publicly update or revise any forward-looking statements.*

### The Company

Neoprobe Corporation is a biomedical technology company that provides innovative surgical and diagnostic products that enhance patient care. We currently market two lines of medical devices; our neo2000<sup>®</sup> and neoprobe<sup>®</sup> GDS gamma detection systems and the Quantix<sup>®</sup> line of blood flow measurement devices of our wholly-owned subsidiary, Cardiosonix Ltd. (Cardiosonix). In addition to our medical device products, we have two radiopharmaceutical products, Lymphoseek<sup>®</sup> and RIGScan<sup>®</sup> CR, in the advanced phases of clinical development. We are also exploring the development of our activated cellular therapy (ACT) technology for patient-specific disease treatment through our majority-owned subsidiary, Cira Biosciences, Inc. (Cira Bio).

### Product Line Overview

This Overview section contains a number of forward-looking statements, all of which are based on current expectations. Actual results may differ materially. Our financial performance is highly dependent on our ability to continue to generate income and cash flow from our medical device product lines. We cannot assure you that we will achieve the volume of sales anticipated, or if achieved, that the margin on such sales will be adequate to produce positive operating cash flow.

We believe that the future prospects for Neoprobe continue to improve as we make progress in all of our key growth areas, especially related to our Lymphoseek initiative. Despite the current global economic conditions, our gamma device line continues to provide a strong revenue base. Due in part to the increased revenue share we receive from EES starting in January 2009, we expect overall revenue for our gamma device line for 2009 to be consistent with 2008. We also expect sales of our blood flow measurement devices to decrease in 2009 compared to 2008. We believe we have minimized the potential negative cash flow impact of the blood flow device line on our ongoing business as we evaluate other strategic options for the product line. Our primary development efforts over the last few years have been focused on our oncology drug development initiatives: Lymphoseek and RIGScan CR. We continue to make progress with both initiatives; however, neither Lymphoseek nor RIGScan CR is anticipated to generate any significant revenue for us during 2009.

Our operating expenses during the first six months of 2009 were focused primarily on support of Lymphoseek product development. In addition, we continued to modestly invest in our gamma detection device line related to product line expansion and innovation. We expect our drug-related development expenses to increase significantly over the remainder of 2009 as we continue the second multi-center Phase 3 clinical evaluation of Lymphoseek and support the other drug stability and production validation activities related to supporting the potential marketing registration of Lymphoseek. We expect to continue to incur modest development expenses to support our device product lines as well as we work with our marketing partners to expand our product offerings in the gamma device arena. We expect to continue to limit our financial support for our blood flow measurement products during the remainder of 2009.

Our efforts thus far in 2009 have resulted in the following milestone achievements:

- Completed enrollment of patients in the first Phase 3 clinical study of Lymphoseek (NEO3-05) in patients with breast cancer or melanoma and exceeded the study's primary efficacy endpoint (based on preliminary results).
- Initiated a second Phase 3 clinical trial of Lymphoseek (the "Sentinel" trial or NEO3-06) in patients with head and neck squamous cell carcinoma.
- Began a new five-year term of our EES gamma detection device distribution agreement.
- Introduced a high energy F-18 probe into our gamma detection device product portfolio.
- Reached a debt restructuring agreement allowing reclassification of a majority of the Company's derivative liabilities and resulting in the exercise of a portion of the Series Y Warrants, producing \$1.6 million in cash flow to the Company, with the balance of the Series Y Warrants to be exercised by September 30, 2009 for an additional \$1.8 million in cash.

In June 2008, we initiated the NEO3-05 study, which was the first of two Phase 3 studies to support the filing of a new drug application for Lymphoseek. This first trial was conducted in patients with either breast cancer or melanoma and was designed to determine the concordance of Lymphoseek uptake in lymph nodes with the uptake of vital blue dye in the same lymph nodes. In March 2009, we announced that we had reached the original patient accrual target and, based on a review of preliminary data, the efficacy endpoint for the trial had been achieved.

In June 2009, we initiated a second Phase 3 clinical trial to be conducted in patients with head and neck squamous cell carcinoma (NEO3-06 or the "Sentinel" trial). The Sentinel study is designed to validate Lymphoseek as a sentinel lymph node targeting agent. Our discussions with FDA and EMEA have also suggested that the Sentinel trial will support an intended use of Lymphoseek in sentinel lymph node biopsy procedures. We believe such an indication would be beneficial to the marketing and commercial adoption of Lymphoseek in the U.S. and European Union (EU). We plan to use the safety and efficacy results from the Phase 3 clinical evaluations of Lymphoseek, which will include sites in the EU, to support the drug registration application process in the EU as well as in the U.S. We plan to have approximately 25 – 35 participating institutions in the Sentinel trial. We hope a larger number of participating sites than we have had in previous trials will ultimately enable us to enroll patients at a more rapid rate. The trial protocol is currently under review at a number of these institutions. Our goal is to file the new drug application for Lymphoseek in mid-2010; however, this will be dependent upon our ability to commence and successfully conclude the Sentinel trial in a timely fashion. This is highly dependent on the timing of institutional review board (IRB) approvals of the NEO3-06 protocol. Our experience in the NEO3-05 trial has shown that this process may be lengthening due to risk management concerns on the part of hospitals participating in clinical trials and other factors. Depending on the timing of patient accrual, and the timing and outcome of the FDA regulatory review cycle, we believe that Lymphoseek can be commercialized in mid-2011. We cannot assure you, however, that this product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

Over the past few years, we have made progress in advancing our RIGScan CR development program while incurring minimal research expenses. Our RIGS<sup>®</sup> technology, which had been essentially inactive since failing to gain approval following our original license application in 1997, has been the subject of renewed interest due primarily to the analysis of survival data related to patients who participated in the original Phase 3 clinical studies that were completed in 1996. After a successful pre-submission meeting with EMEA in July 2008, we submitted a plan during the third quarter on how we would propose to complete clinical development for RIGScan CR. The clinical protocol we submitted to EMEA involves approximately 400 patients in a randomized trial of patients with colorectal cancer. The participants in the trial would be randomized to either a control or RIGS treatment arm. Patients randomized to the RIGS arm would have their disease status evaluated at the end of their cancer surgery to determine the presence or absence of RIGS-positive tissue. Patients in both randomized arms would be followed to determine if patients with RIGS-positive status have a lower overall survival rate and/or a higher occurrence of disease recurrence. The hypothesis for the trial is based upon the data from the earlier NEO2-13 and NEO2-14 trial results. EMEA cleared the protocol in December 2008. We had planned to submit the protocol to FDA in December 2008 but are awaiting confirmation that FDA has transferred responsibility for our IND from the Center for Biologics Evaluation and Review (CBER) division to the Center for Diagnostics Evaluation and Review (CDER) division. We remain hopeful that this transfer will be completed in the near future; however, we are preparing to submit a pre-Phase 3 meeting request in the event such transfer is not completed soon. In addition, we have commenced the initial development activities for the production of RIGScan CR consistent with the scientific advice received from EMEA.

We continue to believe it will be necessary for us to identify a development partner or an alternative funding source in order to prepare for and fund the pivotal clinical testing that will be necessary to gain marketing clearance for RIGScan CR. In the past, we have engaged in discussions with various parties regarding such a partnership. We believe the recently clarified regulatory pathway approved by EMEA will assist us in those efforts. However, we believe it remains important to gain FDA concurrence with the EMEA decision in order to secure a partnership that is optimally beneficial to the Company. Even if we are able to make such arrangements on satisfactory terms, we believe that the time required for continued development, regulatory approval and commercialization of a RIGS product would likely be a minimum of five years before we receive any significant product-related royalties or revenues. We cannot assure you that we will be able to complete definitive agreements with a development partner or obtain financing to fund development of the RIGS technology and do not know if such arrangements could be obtained on a timely basis on terms acceptable to us, or at all. We also cannot assure you that FDA or EMEA will clear our RIGS products for marketing or that any such products will be successfully introduced or achieve market acceptance.

In 2005, we formed a new subsidiary, Cira Bio, to explore the development of ACT. Neoprobe owns approximately 90% of the outstanding shares of Cira Bio with the remaining shares being held by the principals of a private holding company, Cira LLC. In conjunction with the formation of Cira Bio, an amended technology license agreement also was executed with The Ohio State University, from whom both Neoprobe and Cira LLC had originally licensed or optioned the various cellular therapy technologies. As a result of the cross-license agreements, Cira Bio has the exclusive development and commercialization rights to three issued U.S. patents that cover the oncology and autoimmune applications of its technology. In addition, Cira Bio has exclusive licenses to several pending patent applications. We hope to identify a funding source to continue Cira Bio's development efforts. If we are successful in identifying a funding source, we expect that any funding would likely be accomplished by an investment directly into Cira Bio, so that the funds raised would not dilute current Neoprobe shareholders. Obtaining this funding would likely dilute Neoprobe's ownership interest in Cira Bio; however, we believe that moving forward such a promising technology will only yield positive results for the Neoprobe stockholders and the patients who could benefit from these treatments. However, we do not know if we will be successful in obtaining funding on terms acceptable to us, or at all. In the event we fail to obtain financing for Cira Bio, the technology rights for the oncology applications of ACT may revert back to Neoprobe and the technology rights for the viral and autoimmune applications may revert back to Cira LLC upon notice by either party.

We expect that sales from our medical devices will result in a net profit in 2009 for those lines of business, excluding general and administrative costs, interest and other financing-related charges. Our overall operating results for 2009 will also be greatly affected by the amount of development of our radiopharmaceutical products. Primarily as a result of the significant development costs we expect to incur related to the continued clinical development of Lymphoseek, we do not expect to achieve operating profit during 2009. In addition, our net loss and loss per share will likely be significantly impacted by the non-cash expense we have recorded year-to-date due to the accounting treatment for the derivative liabilities related to the convertible debt we issued in December 2007 and April 2008 and the convertible preferred stock we issued in December 2008. In July 2009, we agreed with Montaur to eliminate certain terms from the financial instruments which were causing the majority of the derivative treatment. This will result in additional non-cash losses for 2009 through the point where the agreement was reached and in connection with the effective extinguishment of the debt; however, the elimination of the terms will permit the Company to eliminate the majority of the derivative liabilities and therefore minimize the potential future impact of marking derivative liabilities to market. We cannot assure you that our current or potential new products will be successfully commercialized, that we will achieve significant product revenues, or that we will achieve or be able to sustain profitability in the future.

## **Results of Operations**

Revenue for the first six months of 2009 increased to \$4.6 million from \$4.0 million for the same period in 2008. Research and development expenses, as a percentage of net sales, increased to 56% during the first six months of 2009 from 36% during the same period in 2008. Selling, general and administrative expenses, as a percentage of net sales, decreased to 39% during the first six months of 2009 from 44% during the same period in 2008. Due to the ongoing development activities of the Company, research and development expenses as a percentage of sales are expected to be higher in 2009 than they were in 2008.

### *Three Months Ended June 30, 2009 and 2008*

*Net Sales and Margins.* Net sales, comprised primarily of sales of our gamma detection systems, decreased \$446,000, or 20%, to \$1.8 million during the second quarter of 2009 from \$2.3 million during the same period in 2008. Gross margins on net sales increased to 69% of net sales for the second quarter of 2009 compared to 60% of net sales for the same period in 2008.

The decrease in net sales was primarily the result of decreased gamma detection device sales of \$438,000 and decreased blood flow measurement device sales of \$54,000, offset by increased gamma detection device extended service contract revenue of \$29,000 and increased gamma detection device non-warranty service revenue of \$16,000. The decrease in gamma detection device sales was primarily due to decreased unit sales partially offset by increased unit prices of our control units and probes. The decrease in unit sales compared to the prior year can be partially attributed to the timing of purchases by our primary marketing partner, Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company, who purchased more units than normal during the first quarter of 2009, resulting in unseasonably lower purchases in the second quarter of 2009. The price at which we sell our gamma detection products to EES is based on a percentage of the global average selling price (ASP) received by EES on sales of Neoprobe products to end customers, subject to a minimum floor price. In January 2009, Neoprobe began receiving an increased percentage of ASP for certain products under the terms of our amended distribution agreement with EES. The increase in gross margins on net product sales was due to a combination of factors including the increased percentage of ASP received by Neoprobe from EES.

*Research and Development Expenses.* Research and development expenses increased \$409,000, or 46%, to \$1.3 million during the second quarter of 2009 from \$899,000 during the same period in 2008. Research and development expenses in the second quarter of 2009 included approximately \$960,000 in drug and therapy product development costs, \$344,000 in gamma detection device development costs, and \$4,000 in product design and support activities for the Quantix products. This compares to expenses of \$561,000, \$286,000 and \$52,000 in these segment categories during the same period in 2008. The changes in each category were primarily due to (i) increased clinical activities related to Lymphoseek due to costs related to the Phase 3 clinical trials in the second quarter of 2009 being higher than costs of Phase 3 preparation activities in the second quarter of 2008, (ii) development costs of our new high energy detection probe in the second quarter of 2009, and (iii) decreased product refinement activities related to our Quantix devices, respectively.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses decreased \$38,000, or 4%, to \$866,000 during the second quarter of 2009 from \$904,000 during the same period in 2008. The net difference was due primarily to decreases in investor relations and marketing costs.

*Other Income (Expenses).* Other expenses, net increased \$13.6 million to \$14.2 million during the second quarter of 2009 from \$565,000 during the same period in 2008. During the second quarter of 2009, we recorded a \$13.7 million increase in derivative liabilities resulting from the accounting treatment for the convertible debt agreements we executed in December 2007 and April 2008, the convertible preferred stock we issued in December 2008, and the related warrants to purchase our common stock, which contained certain provisions that resulted in their being treated as derivative liabilities under new accounting guidance effective January 1, 2009. During the second quarter of 2008, we recorded a \$113,000 increase in derivative liabilities. Interest expense, primarily related to the convertible debt agreements we completed in December 2007 and April 2008, decreased \$8,000 to \$462,000 during the second quarter of 2009 from \$470,000 for the same period in 2008. Of this interest expense, \$185,000 and \$195,000 in the second quarters of 2009 and 2008, respectively, was non-cash in nature related to the amortization of debt issuance costs and discounts resulting from the warrants and conversion features of the convertible debt. An additional \$250,000 of interest expense in the second quarter of 2009 was non-cash in nature due to the payment or accrued payment of interest on our convertible debt with shares of our common stock.

#### *Six Months Ended June 30, 2009 and 2008*

*Net Sales and Margins.* Net sales, comprised primarily of sales of our gamma detection systems, increased \$471,000, or 12%, to \$4.5 million during the first six months of 2009 from \$4.0 million during the same period in 2008. Gross margins on net sales increased to 69% of net sales for the first six months of 2009 compared to 61% of net sales for the same period in 2008.

The increase in net sales was the result of increased gamma detection device sales of \$452,000 and increased gamma detection device extended service contract revenue of \$47,000, offset by decreases of \$51,000 in blood flow measurement device sales. The increase in gamma detection device sales was primarily due to increased unit prices partially offset by decreased unit sales of our control units and detector probes. The price at which we sell our gamma detection products to EES is based on a percentage of the global ASP received by EES on sales of Neoprobe products to end customers, subject to a minimum floor price. In January 2009, Neoprobe began receiving an increased percentage of ASP for certain products under the terms of our amended distribution agreement with EES. The increase in gross margins on net product sales was due to a combination of factors including the increased percentage of ASP received by Neoprobe from EES.

*Research and Development Expenses.* Research and development expenses increased \$1.0 million, or 74%, to \$2.5 million during the first six months of 2009 from \$1.5 million during the same period in 2008. Research and development expenses in the first six months of 2009 included approximately \$1.9 million in drug and therapy product development costs, \$637,000 in gamma detection device development costs, and \$20,000 in product design and support activities for the Quantix products. This compares to expenses of \$892,000, \$451,000 and \$119,000 in these segment categories during the same period in 2008. The changes in each category were primarily due to (i) increased clinical activities related to Lymphoseek due to costs related to the Phase 3 clinical trials in the first six months of 2009 being higher than costs of Phase 3 preparation activities in the first six months of 2008, (ii) development costs of our new high energy detection probe in the first six months of 2009, and (iii) decreased product refinement activities related to our Quantix devices, respectively.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses remained steady at \$1.8 million during the first six months of 2009 and 2008. Increases in facilities costs were offset by decreases in marketing costs.

*Other Income (Expenses).* Other expenses, net increased \$11.8 million to \$13.1 million during the first six months of 2009 from \$1.3 million during the same period in 2008. During the first six months of 2009, we recorded a \$12.2 million increase in derivative liabilities resulting from the accounting treatment for the convertible debt agreements we executed in December 2007 and April 2008, the convertible preferred stock we issued in December 2008, and the related warrants to purchase our common stock, which contained certain provisions that resulted in their being treated as derivative liabilities under new accounting guidance effective January 1, 2009. During the first six months of 2008, we recorded a \$500,000 increase in derivative liabilities. Interest expense, primarily related to the convertible debt agreements we completed in December 2007 and April 2008, increased \$117,000 to \$919,000 during the first six months of 2009 from \$802,000 for the same period in 2008. Of this interest expense, \$365,000 and \$334,000 in the first six months of 2009 and 2008, respectively, was non-cash in nature related to the amortization of debt issuance costs and discounts resulting from the warrants and conversion features of the convertible debt. An additional \$417,000 of interest expense in the first six months of 2009 was non-cash in nature due to the payment or accrued payment of interest on our convertible debt with shares of our common stock.

### **Liquidity and Capital Resources**

Cash balances including short term available-for-sale securities decreased to \$3.1 million at June 30, 2009 from \$4.1 million at December 31, 2008. The net decrease was primarily due to cash used to fund our operations, mainly for research and development activities. The current ratio decreased to 2.8:1 at June 30, 2009 from 3.1:1 at December 31, 2008.

*Operating Activities.* Cash used in operations increased \$168,000 to \$781,000 during the first six months of 2009 compared to \$613,000 during the same period in 2008.

Accounts receivable decreased to \$1.1 million at June 30, 2009 from \$1.6 million at December 31, 2008. The decrease was primarily a result of normal fluctuations in timing of purchases and payments by EES. We expect overall receivable levels will continue to fluctuate during 2009 depending on the timing of purchases and payments by EES.

Inventory levels increased to \$1.1 million at June 30, 2009 compared to \$962,000 at December 31, 2008. Gamma detection finished device inventory increased as sales of detector probes decreased. Blood flow measurement device materials decreased as materials were converted into finished devices. We expect inventory levels to increase during 2009 as a result of the planned production of a commercial-grade inventory of Lymphoseek.

*Investing Activities.* Investing activities provided \$375,000 during the first six months of 2009 compared to \$245,000 used during the same period in 2008. Available-for-sale securities of \$494,000 matured during the first six months of 2009. Capital expenditures of \$59,000 and \$45,000 during the first six months of 2009 and 2008, respectively, were primarily for computers, software and laboratory equipment. We expect our overall capital expenditures for 2009 will be higher than 2008 as we prepare for the commercial production of Lymphoseek. Payments for patent and trademark costs were \$61,000 during the first six months of 2009.

*Financing Activities.* Financing activities used \$26,000 during the first six months of 2009 compared to \$2.8 million provided during the same period in 2008. Proceeds from the issuance of common stock were \$95,000 and \$114,000 during the first six months of 2009 and 2008, respectively. Proceeds from notes payable were \$3.0 million during the first six months of 2008. Payments of debt issuance costs were \$200,000 during the first six months of 2008. Payments of notes payable were \$103,000 and \$107,000 during the first six months of 2009 and 2008, respectively.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital, an Illinois limited liability company, to sell \$6.0 million of our common stock to Fusion Capital over a 24-month period which ended on November 21, 2008. Through November 21, 2008, we sold to Fusion Capital under the agreement 7,568,671 shares for proceeds of \$1.9 million. In December 2008, we entered into an amendment to the agreement which gave us a right to sell an additional \$6.0 million of our common stock to Fusion Capital before March 1, 2011, along with the \$4.1 million of the unsold balance of the \$6.0 million we originally had the right to sell to Fusion Capital under the original agreement. After giving effect to this amendment, the remaining aggregate amount of our common stock we can sell to Fusion Capital is \$10.1 million. We have reserved a total of 10,654,000 shares of our common stock in respect to potential sales of common stock we may make to Fusion Capital in the future under the amended agreement.



In December 2006, we issued to Fusion Capital 720,000 shares of our common stock as a commitment fee upon execution of the original agreement. As sales of our common stock were made under the original agreement, we issued an additional 234,000 shares of our common stock to Fusion Capital as an additional commitment fee. In connection with entering into the amendment, we issued an additional 360,000 shares in consideration for Fusion Capital's entering into the amendment. Also, as an additional commitment fee, we have agreed to issue to Fusion Capital an additional 486,000 shares of our common stock pro rata as we sell the first \$4.1 million of our common stock to Fusion Capital under the amended agreement.

In July 2007, David C. Bupp, our President and CEO, and certain members of his family (the Bupp Investors) purchased a \$1.0 million convertible note (the Bupp Note) and warrants. The note bears interest at 10% per annum, had an original term of one year and is repayable in whole or in part with no penalty. The note is convertible into shares of our common stock at a price of \$0.31 per share, a 25% premium to the average closing market price of our common stock for the 5 days preceding the closing of the transaction. As part of this transaction, we issued the Bupp Investors Series V Warrants to purchase 500,000 shares of our common stock at an exercise price of \$0.31 per share, expiring in July 2012.

In December 2007, we entered into a Securities Purchase Agreement (SPA) with Platinum Montaur Life Sciences, LLC (Montaur), pursuant to which we issued Montaur a 10% Series A Convertible Senior Secured Promissory Note in the principal amount of \$7,000,000, due December 26, 2011 (the Series A Note) and a five-year Series W Warrant to purchase 6,000,000 shares of our common stock, \$.001 par value per share, at an exercise price of \$0.32 per share. Montaur may convert \$3.5 million of the Series A Note into shares of our common stock at the conversion price of \$0.26 per share. The SPA also provided for two further tranches of financing, a second tranche of \$3 million in exchange for a 10% Series B Convertible Senior Secured Promissory Note along with a five-year Series X Warrant to purchase shares of our common stock, and a third tranche of \$3 million in exchange for 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock and a five-year Series Y Warrant to purchase shares of our common stock. Closings of the second and third tranches were subject to the satisfaction by the Company of certain milestones related to the progress of the Phase 3 clinical trials of our Lymphoseek radiopharmaceutical product.

In April 2008, following receipt by the Company of clearance from FDA to commence a Phase 3 clinical trial for Lymphoseek in patients with breast cancer or melanoma, we amended the SPA related to the second tranche and issued Montaur a 10% Series B Convertible Senior Secured Promissory Note in the principal amount of \$3,000,000, also due December 26, 2011 (the Series B Note, and hereinafter referred to collectively with the Series A Note as the Montaur Notes), and a five-year Series X Warrant to purchase 8,333,333 shares of our common stock at an exercise price of \$0.46 per share. Montaur may convert the Series B Note into shares of our common stock at the conversion price of \$0.36 per share. Provided we have satisfied certain conditions stated therein, we may elect to make payments of interest due under the Montaur Notes in registered shares of our common stock. If we choose to make interest payments in shares of common stock, the number of shares of common stock to be applied against any such interest payment will be determined by reference to the quotient of (a) the applicable interest payment divided by (b) 90% of the average daily volume weighted average price of our common stock on the OTCBB (or national securities exchange, if applicable) as reported by Bloomberg Financial L.P. for the five days upon which our common stock is traded on the OTCBB immediately preceding the date of the interest payment.

In December 2008, after we obtained 135 vital blue dye lymph nodes from patients who had completed surgery and the injection of the drug in a Phase 3 clinical trial of Lymphoseek in patients with breast cancer or melanoma, we issued Montaur 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock (the Preferred Stock) and a five-year Series Y Warrant (hereinafter referred to collectively with the Series W Warrant and Series X Warrant as the Montaur Warrants) to purchase 6,000,000 shares of our common stock, at an exercise price of \$0.575 per share, also for an aggregate purchase price of \$3,000,000. Montaur may convert each share of the Preferred Stock into a number of shares of our common stock equal to the quotient of (a) the Liquidation Preference Amount of the shares of Preferred Stock by (b) the Conversion Price. The "Liquidation Preference Amount" for the Preferred Stock is \$1,000 and the "Conversion Price" of the Preferred Stock was set at \$0.50 on the date of issuance, thereby making the shares of Preferred Stock convertible into an aggregate 6,000,000 shares of our common stock, subject to adjustment as described in the Certificate of Designations, Voting Powers, Preferences, Limitations, Restrictions, and Relative Rights of Series A 8% Cumulative Convertible Preferred Stock. We may elect to pay dividends due to Montaur on the shares of Preferred Stock in registered shares of our common stock. The number of shares of common stock to be applied against any such dividend payment will be determined by reference to the quotient of (a) the applicable dividend payment by (b) 90% of the average daily volume weighted average price of our common stock on the OTCBB (or national securities exchange, if applicable) as reported by Bloomberg Financial L.P. for the five days upon which our common stock is traded on the OTCBB immediately preceding the date of the dividend payment.

On July 24, 2009, we entered into a Securities Amendment and Exchange Agreement with Montaur, pursuant to which Montaur agreed to the amendment and restatement of the terms of the Montaur Notes, the Preferred Stock, and the Montaur Warrants. The Series A Note was amended to grant Montaur conversion rights with respect to the \$3.5 million portion of the Series A Note that was previously not convertible. The newly convertible portion of the Series A Note is convertible at \$0.9722 per share. The amendments also eliminated certain price reset features of the Montaur Notes, the Preferred Stock and the Montaur Warrants that had created a significant non-cash derivative liability on the Company's balance sheet. In conjunction with this transaction, we issued Montaur a Series AA Warrant to purchase 2,400,000 million shares of our common stock at an exercise price of \$0.97 per share, expiring in July 2014. The changes in terms of the Montaur Notes, the Preferred Stock and the Montaur Warrants will be treated as an extinguishment of debt for accounting purposes. The Company will record an additional \$5.6 million in mark-to-market adjustments related to the increase in the Company's common stock from June 30 to July 24, 2009. As a result of the extinguishment treatment associated with the elimination of the price reset features, the Company will also record \$16.2 million in non-cash loss on the extinguishment and will reclassify \$27.0 million in derivative liabilities to additional paid-in capital. Following the extinguishment, the Company's balance sheet will reflect the face value of the \$10 million due to Montaur pursuant to the Montaur Notes. In connection with this transaction, Montaur exercised 2,844,319 Series Y Warrants in exchange for issuance of 2,844,319 shares of our common stock, resulting in gross proceeds of \$1,635,483. In addition, Montaur agreed to exercise their remaining 3,155,681 Series Y Warrants no later than September 30, 2009, which will result in additional gross proceeds of \$1,815,517.

In connection with the Montaur SPA, the term of the \$1.0 million Bupp Note was extended to December 27, 2011, one day following the maturity date of the Montaur Notes. In consideration for the Bupp Investors' agreement to extend the term of the Bupp Note pursuant to an Amendment to the Bupp Purchase Agreement, dated December 26, 2007, we agreed to provide security for the obligations evidenced by the Amended 10% Convertible Note in the principal amount of \$1,000,000, due December 31, 2011, executed by Neoprobe in favor of the Bupp Investors (the Amended Bupp Note), under the terms of a Security Agreement, dated December 26, 2007, by and between Neoprobe and the Bupp Investors (the Bupp Security Agreement). This security interest is subordinate to the security interest of Montaur. As further consideration for extending the term of the Bupp Note, we issued the Bupp Investors Series V Warrants to purchase 500,000 shares of our common stock at an exercise price of \$0.32 per share, expiring in December 2012. The Amended Bupp Note had an outstanding principal amount of \$1.0 million on June 30, 2009, and an outstanding principal amount of \$1.0 million as of August 7, 2009. During the first six months of 2009, we paid none of the outstanding principal and paid \$50,000 in interest due under the Amended Bupp Note.

Our future liquidity and capital requirements will depend on a number of factors, including our ability to expand market acceptance of our current products, our ability to complete the commercialization of new products, our ability to monetize our investment in non-core technologies, our ability to obtain milestone or development funds from potential development and distribution partners, regulatory actions by FDA and international regulatory bodies, and intellectual property protection. Our most significant near-term development priority is to complete the second Phase 3 clinical trial of Lymphoseek. We believe our current funds and available capital resources will be adequate to complete our Lymphoseek development efforts and sustain our operations at planned levels for the foreseeable future. We are in the process of determining the total development cost necessary to commercialize RIGScan CR but believe that it will require total additional commitments of between \$3 million to \$5 million to restart manufacturing and other activities necessary to prepare for the Phase 3 clinical trial contemplated in the recent EMEA scientific advice response. We plan to use part of the proceeds from Montaur's recent warrant exercises to initiate the first steps of restarting manufacturing of RIGScan CR; however, we still intend to involve a partner in the longer-term development of RIGScan CR. We may also be able to raise additional funds through a stock purchase agreement with Fusion Capital to supplement our capital needs. However, the extent to which we rely on Fusion Capital as a source of funding will depend on a number of factors, including the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. Specifically, Fusion Capital does not have the right or the obligation to purchase any shares of our common stock on any business day that the market price of our common stock is less than \$0.20 per share. We cannot assure you that we will be successful in raising additional capital through Fusion Capital or any other sources at terms acceptable to the Company, or at all. We also cannot assure you that we will be able to successfully obtain regulatory approval for and commercialize new products, that we will achieve significant product revenues from our current or potential new products or that we will achieve or sustain profitability in the future.

### **Recent Accounting Developments**

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurements*. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS No. 157 applies under other accounting pronouncements that require or permit fair value measurements, the FASB having previously concluded in those accounting pronouncements that fair value is the relevant measurement attribute. Accordingly, SFAS No. 157 does not require any new fair value measurements. SFAS No. 157 was initially effective for Neoprobe beginning January 1, 2008. In February 2008, the FASB approved the issuance of FASB Staff Position (FSP) FAS 157-2. FSP FAS 157-2 allowed entities to electively defer the effective date of SFAS No. 157 until January 1, 2009 for nonfinancial assets and nonfinancial liabilities except those items recognized or disclosed at fair value on at least an annual basis. We began applying the fair value measurement and disclosure provisions of SFAS No. 157 to nonfinancial assets and liabilities effective January 1, 2009. The application of such was not material to our consolidated results of operations or financial condition. See Note 1(b) and Note 2.

In December 2007, the FASB issued SFAS No. 141(R) (revised 2007), *Business Combinations*. SFAS No. 141(R) retains the fundamental requirements of the original pronouncement requiring that the acquisition method (formerly called the purchase method) of accounting be used for all business combinations and for an acquirer to be identified for each business combination. SFAS No. 141(R) defines the acquirer as the entity that obtains control of one or more businesses in the business combination, establishes the acquisition date as the date that the acquirer achieves control and requires the acquirer to recognize the assets and liabilities assumed and any noncontrolling interest at their fair values as of the acquisition date. SFAS No. 141(R) requires, among other things, that the acquisition-related costs be recognized separately from the acquisition. SFAS No. 141(R) applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008, and was adopted by Neoprobe beginning January 1, 2009. The effect the adoption of SFAS No. 141(R) will have on us will depend on the nature and size of acquisitions we complete in the future, if any.

Also in December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements – an Amendment of ARB No. 51*. SFAS No. 160 amends ARB No. 51 to establish accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It also amends certain of ARB No. 51's consolidation procedures for consistency with the requirements of SFAS No. 141(R), *Business Combinations*. SFAS No. 160 is effective for fiscal years and interim periods within those fiscal years beginning on or after December 15, 2008, and was adopted by Neoprobe beginning January 1, 2009. SFAS No. 160 is being applied prospectively as of the beginning of the fiscal year in which it was adopted, except for the presentation and disclosure requirements. The presentation and disclosure requirements are being applied retrospectively for all periods presented. The adoption of SFAS No. 160 did not have a material effect on our consolidated results of operations or financial condition.

In December 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force (EITF) on EITF Issue No. 07-1, *Accounting for Collaborative Arrangements*. EITF Issue No. 07-1 focuses on defining a collaborative arrangement as well as the accounting for transactions between participants in a collaborative arrangement and between the participants in the arrangement and third parties. The EITF concluded that both types of transactions should be reported in each participant's respective income statement. We adopted EITF Issue No. 07-1 beginning January 1, 2009. The adoption of EITF Issue No. 07-1 did not have a material effect on our consolidated results of operations or financial condition.

In March 2008, the FASB issued SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities – an Amendment of FASB Statement No. 133*. SFAS No. 161 amends and expands the disclosure requirements of Statement No. 133 to provide a better understanding of how and why an entity uses derivative instruments, how derivative instruments and related hedged items are accounted for, and their effect on an entity's financial position, financial performance, and cash flows. We adopted SFAS No. 161 beginning January 1, 2009. The adoption of SFAS No. 161 did not have a material impact on our derivative disclosures. See Note 10.

In June 2008, the FASB ratified the consensus reached by the EITF on EITF Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock*. EITF Issue No. 07-5 clarifies the determination of whether equity-linked instruments (or embedded features), such as our convertible notes or warrants to purchase our common stock, are considered indexed to our own stock, which would qualify as a scope exception under SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. We adopted EITF Issue No. 07-5 beginning January 1, 2009. The adoption of EITF Issue No. 07-5 had a material impact on our consolidated financial statements. See Note 10.

Also in June 2008, the FASB issued FSP EITF 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions are Participating Securities*. FSP EITF 03-6-1 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents, whether paid or unpaid, are participating securities and are required to be included in the computation of earnings per share pursuant to the two-class method described in SFAS No. 128, *Earnings Per Share*. The two-class method of computing earnings per share includes an earnings allocation formula that determines earnings per share for common stock and any participating securities according to dividends declared, whether paid or unpaid, and participation rights in undistributed earnings. All prior period earnings per share data presented are required to be adjusted retrospectively to conform with the provisions of FSP EITF 03-6-1. We adopted FSP EITF 03-6-1 beginning January 1, 2009. The adoption of FSP EITF 03-6-1 had no material impact on our earnings (loss) per share for the three-month and six-month periods ended June 30, 2009 and 2008.

In April 2009, the FASB issued FSP FAS 107-1 and APB 28-1, *Interim Disclosures About Fair Value of Financial Instruments*, which amends SFAS No. 107, *Disclosures About Fair Value of Financial Instruments*, and APB Opinion 28, *Interim Financial Reporting*, respectively, to require disclosure about fair value of financial instruments for interim reporting periods of publicly traded companies in addition to annual financial statements. We adopted FSP FAS 107-1 and APB 28-1 beginning April 1, 2009. As FSP FAS 107-1 and APB 28-1 provide only disclosure requirements, the adoption of this standard did not have an impact on our consolidated financial position, results of operations or cash flows, but did result in increased disclosures in the second quarter of 2009. See Note 1(b).

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events*, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before the financial statements are issued or are available to be issued. It requires the disclosure of the date through which an entity has evaluated subsequent events and the basis for that date. We adopted SFAS No. 165 beginning April 1, 2009. The adoption of SFAS No. 165 did not have a material impact on our consolidated financial position, results of operations or cash flows. We have evaluated subsequent events through August 14, 2009, the date our consolidated financial statements were issued. See Note 1(a) and Note 15.

In June 2009, the FASB issued SFAS No. 168, *The FASB Accounting Standards Codification™ and the Hierarchy of Generally Accepted Accounting Principles — a replacement of FASB Statement No. 162*. SFAS No. 168 establishes the FASB Accounting Standard Codification™ (Codification) as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with generally accepted accounting principles in the United States (U.S. GAAP). All guidance contained in the Codification carries an equal level of authority. The Codification does not change current U.S. GAAP, but is intended to simplify user access to all authoritative U.S. GAAP by providing all the authoritative literature related to a particular topic in one place. On the effective date of SFAS No. 168, the Codification will supersede all then-existing non-SEC accounting and reporting standards. All other non-grandfathered non-SEC accounting literature not included in the Codification will become non-authoritative. SFAS No. 168 is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The implementation of SFAS No. 168 will not have a material impact on our consolidated financial statements.

### **Critical Accounting Policies**

*The following accounting policies are considered by us to be critical to our results of operations and financial condition.*

*Revenue Recognition Related to Net Sales.* We currently generate revenue primarily from sales of our gamma detection products; however, sales of blood flow measurement products constituted approximately 2% of total revenues for the first six months of 2009. Our standard shipping terms are FOB shipping point, and title and risk of loss passes to the customer upon delivery to a common carrier. We generally recognize sales revenue related to sales of our products when the products are shipped and the earnings process has been completed. However, in cases where product is shipped but the earnings process is not yet completed, revenue is deferred until it has been determined that the earnings process has been completed. Our customers have no right to return products purchased in the ordinary course of business.

The prices we charge our primary customer, EES, related to sales of products are subject to retroactive annual adjustment based on a fixed percentage of the actual sales prices achieved by EES on sales to end customers made during each fiscal year. To the extent that we can reasonably estimate the end-customer prices received by EES, we record sales to EES based upon these estimates. If we are unable to reasonably estimate end customer sales prices related to certain products sold to EES, we record revenue related to these product sales at the minimum (i.e., floor) price provided for under our distribution agreement with EES.

We also generate revenue from the service and repair of out-of-warranty products. Fees charged for service and repair on products not covered by an extended service agreement are recognized on completion of the service process when the serviced or repaired product has been returned to the customer. Fees charged for service or repair of products covered by an extended warranty agreement are deferred and recognized as revenue ratably over the life of the extended service agreement.

*Use of Estimates.* The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We base these estimates and assumptions upon historical experience and existing, known circumstances. Actual results could differ from those estimates. Specifically, management may make significant estimates in the following areas:

- *Stock-Based Compensation.* We account for stock-based compensation in accordance with SFAS No. 123(R), *Share-Based Payment*, which is a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their estimated fair values. Compensation cost arising from stock-based awards is recognized as expense using the straight-line method over the vesting period. We use the Black-Scholes option pricing model to value share-based payments. The valuation assumptions used have not changed from those used under SFAS No. 123.
- *Inventory Valuation.* We value our inventory at the lower of cost (first-in, first-out method) or market. Our valuation reflects our estimates of excess, slow moving and obsolete inventory as well as inventory with a carrying value in excess of its net realizable value. Write-offs are recorded when product is removed from saleable inventory. We review inventory on hand at least quarterly and record provisions for excess and obsolete inventory based on several factors, including current assessment of future product demand, anticipated release of new products into the market, historical experience and product expiration. Our industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of product approvals, variability in product launch strategies, regulations regarding use and shelf life, product recalls and variation in product utilization all impact the estimates related to excess and obsolete inventory.
- *Impairment or Disposal of Long-Lived Assets.* We account for long-lived assets in accordance with the provisions of SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. This Statement requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. As of June 30, 2009, the most significant long-lived assets on our balance sheet relate to assets recorded in connection with the acquisition of CardioSonix. The recoverability of these assets is based on the financial projections and models related to the future sales success of CardioSonix' products. As such, these assets could be subject to significant adjustment if the CardioSonix technology is not successfully commercialized or the sales amounts in our current projections are not realized.
- *Product Warranty.* We warrant our products against defects in design, materials, and workmanship generally for a period of one year from the date of sale to the end customer. Our accrual for warranty expenses is adjusted periodically to reflect actual experience. EES also reimburses us for a portion of warranty expense incurred based on end customer sales they make during a given fiscal year.
- *Fair Value of Derivative Instruments.* We account for derivative instruments in accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which provides accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts. We do not use derivative instruments for hedging of market risks or for trading or speculative purposes. Effective January 1, 2009, we were required to adopt EITF Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock*. EITF Issue No. 07-5 clarified the determination of whether equity-linked instruments (or embedded features), such as our convertible securities and warrants to purchase our common stock, are considered indexed to our own stock, which would qualify as a scope exception under SFAS No. 133. As a result of adopting EITF Issue No. 07-5, certain embedded features of our convertible securities, as well as warrants to purchase our common stock, that were previously treated as equity are now considered derivative liabilities.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

Not applicable.

### **Item 4T. Controls and Procedures**

#### **Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized, and reported within the specified time periods. As a part of these controls, our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act.

Our internal control over financial reporting is 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, and includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the Company are being made only in accordance with authorization of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of June 30, 2009. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures are adequately designed and effective.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures will prevent all errors and all improper conduct. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute assurance that the objectives of the control systems are met. Further, a design of a control system must reflect the fact that there are resource constraints, and the benefit of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of improper conduct, if any, have been detected. These inherent limitations include the realities that judgments and decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more persons, or by management override of the control. Further, the design of any system of controls is also based in part upon assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations of a cost-effective control system, misstatements due to error or fraud may occur and may not be detected.

**Changes in Control Over Financial Reporting**

During the quarter ended June 30, 2009, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.



## PART II - OTHER INFORMATION

### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

- (a) During the three-month period ended June 30, 2009, we issued 462,292 shares of our common stock in payment of March-May 2009 interest of \$250,000 on the 10% Series A and Series B Convertible Senior Secured Promissory Notes held by Platinum Montaur Life Sciences, LLC (Montaur). During the same period, we issued 171,549 shares of our common stock in payment of December-March 2009 dividends of \$258,000 on the 8% Series A Cumulative Convertible Preferred Stock held by Montaur. Also during the three-month period ended June 30, 2009, a Bupp Investor exercised 50,000 Series V Warrants in exchange for issuance of 50,000 shares of our common stock, resulting in gross proceeds of \$16,000. During the same period, certain outside investors exercised a total of 1,010,000 Series U Warrants on a cashless basis in exchange for issuance of 541,555 shares of our common stock. The issuances of the shares to Montaur, the Bupp Investor, and the outside investors were exempt from registration under Sections 4(2) and 4(6) of the Securities Act and Regulation D promulgated thereunder.

### Item 4. Submission of Matters to a Vote of Security Holders

- (a) Neoprobe Corporation held its Annual Meeting of Stockholders on June 25, 2009, to elect three directors.
- (b) At the Annual Meeting of Stockholders, Kirby I. Bland, M.D., Gordon A. Troup, and J. Frank Whitley, Jr. were elected. The terms of office as director continued after the meeting for Carl J. Aschinger, Jr., Reuven Avital, David C. Bupp, Owen E. Johnson, M.D. and Fred B. Miller.
- (c) The following table shows the voting tabulation for the election of directors.

<u>ACTION</u>	<u>FOR</u>	<u>WITHHELD</u>
Election of Directors:		
Kirby I. Bland, M.D.	60,498,676	1,458,951
Gordon A. Troup	60,770,382	1,187,245
J. Frank Whitley, Jr.	59,313,657	2,643,970

**Item 6. Exhibits**

- 31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.\*
- 31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.\*
- 32.1 Certification of Chief Executive Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.\*
- 32.2 Certification of Chief Financial Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.\*

\* Filed herewith.

*Items 1, 3 and 5 are not applicable and have been omitted. There are no material changes in Item 1A from the corresponding item reported in the Company's Form 10-K for the year ended December 31, 2008, and this item has therefore been omitted.*

**SIGNATURES**

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NEOPROBE CORPORATION  
(the Company)  
Dated: August 14, 2009

By: /s/ David C. Bupp

David C. Bupp  
President and Chief Executive Officer  
(duly authorized officer; principal executive officer)

By: /s/ Brent L. Larson

Brent L. Larson  
Vice President, Finance and Chief Financial Officer  
(principal financial and accounting officer)