

NEOPROBE CORP  
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**SECOND AMENDED  
PROSPECTUS  
NEOPROBE CORPORATION  
13,440,000 Shares of Common Stock**

This prospectus relates to the sale of up to 13,440,000 shares of our common stock by Fusion Capital Fund II, LLC (Fusion Capital). Fusion Capital is sometimes referred to in this prospectus as the selling stockholder. The prices at which Fusion Capital may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive proceeds from the sale of our shares by Fusion Capital.

Our common stock is registered under Section 12(g) of the Securities Exchange Act of 1934 and quoted on the OTC Bulletin Board under the symbol NEOP. On May 2, 2008, the last reported sale price for our common stock as reported on the OTC Bulletin Board was \$0.53 per share.

The selling stockholder is an underwriter within the meaning of the Securities Act of 1933, as amended.

**THE SECURITIES OFFERED IN THIS PROSPECTUS INVOLVE A HIGH DEGREE OF RISK. YOU SHOULD CONSIDER THE RISK FACTORS BEGINNING ON PAGE 4 BEFORE PURCHASING OUR COMMON STOCK.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is May 15, 2008.

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**Unless otherwise specified, the information in this prospectus is set forth as of May 5, 2008, and we anticipate that changes in our affairs will occur after such date. We have not authorized any person to give any information or to make any representations, other than as contained in this prospectus, in connection with the offer contained in this prospectus. If any person gives you any information or makes representations in connection with this offer, do not rely on it as information we have authorized. This prospectus is not an offer to sell our common stock in any state or other jurisdiction to any person to whom it is unlawful to make such offer.**

## PROSPECTUS SUMMARY

The following summary highlights selected information from this prospectus and may not contain all the information that is important to you. To understand our business and this offering fully, you should read this entire prospectus carefully, including the financial statements and the related notes beginning on page F-1. When we refer in this prospectus to the company, we, us, and our, we mean Neoprobe Corporation, a Delaware corporation, together with our subsidiaries. This prospectus contains forward-looking statements and information relating to Neoprobe Corporation. See Cautionary Note Regarding Forward Looking Statements on page 15.

### **Our Company**

Neoprobe Corporation (Neoprobe, the company or we) is a biomedical company that develops and commercializes innovative products that enhance patient care and improve patient outcome by meeting the critical intraoperative diagnostic information needs of physicians and therapeutic treatment needs of patients. We were originally incorporated in Ohio in 1983 and reincorporated in Delaware in 1988. Our executive offices are located at 425 Metro Place North, Suite 300, Dublin, Ohio 43017. Our telephone number is (614) 793-7500.

From our inception through 1998, we devoted substantially all of our efforts and resources to the research and clinical development of radiopharmaceutical and medical device technologies related to the intraoperative diagnosis and treatment of cancers, including our proprietary radioimmunoguided surgery (RIGS<sup>®</sup>) technology. In 1998, U.S. and European regulatory agencies completed an evaluation of the status of the regulatory pathway for our RIGS products, which coupled with our limited financial resources, caused us to suspend our radiopharmaceutical development activities and refocus our operating strategy on our medical device business. After achieving profitability in the fourth quarter of 1999 following this retrenchment, we expanded our medical device offerings in 2002 following the acquisition of an Israeli company that was developing a line of blood flow measurement devices.

Although we had expanded our strategic focus with the addition of blood flow measurement devices, we continued to look for other avenues to reinvigorate our radiopharmaceutical development opportunities portfolio. During 2004, our efforts resulted in a number of positive events that caused us to take steps to re-activate our radiopharmaceutical and therapeutic initiatives. As a result of our efforts over the past few years, we now have one radiopharmaceutical product, Lymphoseek<sup>®</sup>, on the verge of commencing two pivotal Phase 3 clinical trials, and a second, RIGScan<sup>®</sup> CR, nearing a greater level of activity as we seek to clarify the regulatory pathway and identify potential development sources of funding or collaboration. Our subsidiary, Cira Biosciences, Inc. (Cira Bio), also took steps in early 2008 to identify funding sources to assist it in evaluating the market opportunities for yet another technology platform, activated cellular therapy (ACT).

We believe that our virtual business model is unique within our industry as it combines revenue generation from medical devices covering our public company overhead while we devote capital raised through financing efforts to the development of products with even greater potential for shareholder return such as Lymphoseek. In addition, we have sought to maintain a development pipeline with additional longer-term return potential such as RIGScan CR and ACT that provide the opportunity for incremental return on the achievement of key development and funding milestones.

### **The Offering**

Fusion Capital, the selling stockholder under this prospectus, is offering for sale up to 13,440,000 shares of our common stock hereunder. On December 1, 2006, we entered into a common stock purchase agreement with Fusion Capital, an Illinois limited liability company. Under the terms of the common stock purchase agreement we have agreed to issue Fusion Capital a commitment fee consisting of 1,440,000 shares of our common stock, of which we have issued 954,000 shares as of April 30, 2008, and we will issue the remaining 486,000 shares of the commitment fee pro rata as we sell \$4.05 million of our common stock to Fusion Capital. We have authorized up to 12,000,000 shares of our common stock for sale to Fusion Capital under the agreement. As of April 30, 2008, there were 68,950,821 shares of our common stock outstanding (66,874,887 shares held by non-affiliates) excluding the 4,431,329 shares which have not yet been purchased by Fusion Capital as a part of the 12,000,000 overall shares offered pursuant to this prospectus and the remaining 486,000 commitment fee shares to be issued pro rata as we sell the remaining \$4.05 million of the overall \$6 million commitment of our common stock to Fusion Capital. If all of such 13,440,000 shares offered hereby were issued and outstanding as of the date hereof, the 12,000,000 shares would represent 16.2% of the total common stock outstanding or 16.7% of the non-affiliates shares outstanding as of the date hereof. The number of shares ultimately offered for sale by Fusion Capital is dependent upon the number of shares purchased by Fusion Capital under the agreement.

We do not have the right to commence any sales of our shares to Fusion Capital until the Securities & Exchange Commission has declared effective the registration statement of which this prospectus forms a part. After the Securities & Exchange Commission has declared effective such registration statement, generally we have the right but not the obligation from time to time to sell our shares to Fusion Capital in amounts between \$50,000 and \$1.0 million depending on certain conditions set forth in the common stock purchase agreement we have entered into with Fusion Capital. We have the right to control the timing and amount of any sales of our shares to Fusion Capital. The purchase price of the shares will be determined based upon the market price of our shares without any fixed discount at the time of each sale. Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock on any business day that the price of our common stock is below \$0.20. The common stock purchase agreement may be terminated by us at any time at our discretion without any cost to us.

**An investment in our common stock is highly speculative and involves a high degree of risk. See Risk Factors beginning on page 4.**

## RISK FACTORS

An investment in our common stock is highly speculative, involves a high degree of risk, and should be made only by investors who can afford a complete loss. You should carefully consider the following risk factors, together with the other information in this prospectus, including our financial statements and the related notes, before you decide to buy our common stock. Our most significant risks and uncertainties are described below; however, they are not the only risks we face. If any of the following risks actually occur, our business, financial condition, or results of operations could be materially adversely affected, the trading of our common stock could decline, and you may lose all or part of your investment therein.

*We have suffered significant operating losses for several years in our history and we may not be able to again achieve profitability.*

We had an accumulated deficit of approximately \$140.8 million and have an overall deficit in stockholders' equity as of December 31, 2007. Although we were profitable in 2000 and in 2001, we incurred substantial losses in the years prior to that, and again in 2002 through 2007. The deficit resulted because we expended more money in the course of researching, developing and enhancing our technology and products and establishing our marketing and administrative organizations than we generated in revenues. We expect to continue to incur significant expenses in the foreseeable future, primarily related to the completion of development and commercialization of **Lymphoseek**, but also potentially related to **RIGS** and our device product lines. As a result, we are sustaining substantial operating and net losses, and it is possible that we will never be able to sustain or develop the revenue levels necessary to again attain profitability.

*Our products and product candidates may not achieve the broad market acceptance they need in order to be a commercial success.*

Widespread use of our handheld gamma detection devices is currently limited to one surgical procedure, Sentinel Lymph Node Biopsy (SLNB), used in the diagnosis and treatment of two primary types of cancer: melanoma and breast cancer. While the adoption of SLNB within the breast and melanoma indications appears to be widespread, expansion of SLNB to other indications such as head and neck, colorectal and prostate cancers is likely dependent on a better lymphatic tissue targeting agent than is currently available. Without expanded indications in which to apply SLNB, it is likely that gamma detection devices will eventually reach market saturation. Our efforts and those of our marketing and distribution partners may not result in significant demand for our products, and the current demand for our products may decline. To date, our efforts to place CardioSonix' Quantix products have met with limited success. The long-term commercial success of the Quantix product line will require much more widespread acceptance of our blood flow measurement products than we have experienced to date. Widespread acceptance of blood flow measurement would represent a significant change in current medical practice patterns. Other cardiac monitoring procedures, such as pulmonary artery catheterization, are generally accepted in the medical community and have a long standard of use. It is possible that the Quantix product line will never achieve the broad market acceptance necessary to become a commercial success.

Our radiopharmaceutical product candidates, **Lymphoseek** and **RIGScan CR**, are still in the process of development, and even if we are successful in commercializing them, we cannot assure you that they will obtain significant market acceptance.

*We may have difficulty raising additional capital, which could deprive us of necessary resources.*

We expect to continue to devote significant capital resources to fund research and development and to maintain existing and secure new manufacturing capacity. In order to support the initiatives envisioned in our business plan, we may need to raise additional funds through the sale of assets, public or private debt or equity financing, collaborative relationships or other arrangements. Our ability to raise additional financing depends on many factors beyond our control, including the state of capital markets, the market price of our common stock and the development or prospects for development of competitive technology by others. Because our common stock is not listed on a major stock market, many investors may not be

willing or allowed to purchase it or may demand steep discounts. Sufficient additional financing may not be available to us or may be available only on terms that would result in further dilution to the current owners of our common stock.

We believe that we have access to sufficient financial resources with which to fund our operations or those of our subsidiaries for the foreseeable future. We expect to raise additional capital during 2008 through existing financing facilities already available to us in order to continue executing on our current business plan. However, if we are unsuccessful in raising additional capital, closing on financing under already agreed to terms, or the terms of raising such capital are unacceptable, we may have to modify our business plan and/or significantly curtail our planned development activities and other operations.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion) that allows us to sell shares of common stock for up to \$6.0 million in proceeds. We authorized up to 12,000,000 shares of our common stock for sale to Fusion under the agreement, and issued 720,000 shares as a commitment fee. Up to an additional 720,000 shares of our common stock may be issued to Fusion as an additional commitment fee as shares are sold to Fusion. Our right to make sales under the agreement is limited to \$50,000 every four business days, unless our stock price equals or exceeds \$0.30 per share, in which case we can sell greater amounts to Fusion as the price of our common stock increases. Fusion does not have the right or the obligation to purchase any shares on any business day that the market price of our common stock is less than \$0.20 per share. Through April 30, 2008, we have sold Fusion 7,568,671 million shares of common stock and issued 954,000 shares of stock as commitment fees to Fusion, resulting in gross proceeds of \$1.95 million. Assuming the remaining 4,431,329 shares are sold, the selling price per share would have to average at least \$0.92 for us to receive the maximum proceeds from this offering of \$6.0 million. Assuming a purchase price of \$0.54 per share (the closing sale price of the common stock on April 30, 2008), the remaining proceeds from this offering would only be \$2.39 million.

The extent to which we rely on Fusion 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, such as through the sale of our products. Specifically, Fusion 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. Further, under the terms of the financing discussed in the following paragraph, we are prohibited from accessing the Fusion line until certain conditions are satisfied. To the extent that we are unable to make sales to Fusion to meet our capital needs, or to the extent that we decide not to make such sales because of excessive dilution or other reasons, and if we are unable to generate sufficient revenues from sales of our products, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we are able to access the full \$4.05 million potentially remaining under the agreement with Fusion, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

On December 26, 2007, we entered into a Securities Purchase Agreement 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 (Common Stock), at an exercise price of \$0.32 per share. On April 16, 2008, following receipt by the Company of clearance by FDA to commence a Phase 3 clinical trial for Lymphoseek in patients with breast cancer or melanoma, we amended the SPA 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 Common Stock at the conversion price of \$0.36 per share. Additionally, pursuant to the terms of the Securities Purchase Agreement, as amended, and subject to certain contingencies described therein, after the Company has obtained 135 vital blue dye lymph nodes from patients who have completed surgery and the injection of the drug in the Phase 3 clinical trial of Lymphoseek in patients with breast cancer or melanoma, we will



issue to 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 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, also for an aggregate purchase price of \$3,000,000.

The Series A Note bears interest at a rate per annum equal to 10%, and is partially convertible at the option of Montaur into Common Stock at a price of \$0.26 per share. The Series B Note also bears interest at a rate per annum equal to 10%, and is convertible into shares of Common Stock at the conversion price of \$0.36 per share. Pursuant to the provisions of the Certificate of Designations, Voting Powers, Preferences, Limitations, Restrictions, and Relative Rights of Series A 8% Cumulative Convertible Preferred Stock, Montaur may convert all or any portion of the shares of Preferred Stock into a number of shares of Common Stock equal to the quotient of: (1) the Liquidation Preference Amount of the shares of Preferred Stock by (2) the Conversion Price then in effect for the Preferred Stock. Per the Certificate of Designations, the Liquidation Preference Amount is equal to \$1,000 per share of Preferred Stock, and the Conversion Price is equal to the lesser of \$0.50 and the closing price of the Common Stock on the issuance date of the Preferred Stock, subject to adjustment as described in the Certificate of Designations.

*Clinical trials for our radiopharmaceutical product candidates will be lengthy and expensive and their outcome is uncertain.*

Before obtaining regulatory approval for the commercial sale of any product candidates, we must demonstrate through preclinical testing and clinical trials that our product candidates are safe and effective for use in humans. Conducting clinical trials is a time consuming, expensive and uncertain process and may take years to complete. We recently successfully completed a Phase 2 clinical trial for our most advanced radiopharmaceutical product candidate, **Lymphoseek**, and are preparing to commence two pivotal Phase 3 trials for this product; one in breast cancer or melanoma and a second in head and neck squamous cell carcinoma. We are also taking steps to obtain FDA or EMEA approval of a Phase 3 clinical protocol for our next radiopharmaceutical candidate, **RIGScan CR**. Historically, the results from preclinical testing and early clinical trials have often not been predictive of results obtained in later clinical trials. Frequently, drugs that have shown promising results in preclinical or early clinical trials subsequently fail to establish sufficient safety and efficacy data necessary to obtain regulatory approval. At any time during the clinical trials, we, the participating institutions, FDA or EMEA might delay or halt any clinical trials for our product candidates for various reasons, including:

- ineffectiveness of the product candidate;

- discovery of unacceptable toxicities or side effects;

- development of disease resistance or other physiological factors;

- delays in patient enrollment; or

- other reasons that are internal to the businesses of our potential collaborative partners, which reasons they may not share with us.

The results of the clinical trials may fail to demonstrate the safety or effectiveness of our product candidates to the extent necessary to obtain regulatory approval or such that commercialization of our product candidates is worthwhile. Any failure or substantial delay in successfully completing clinical trials and obtaining regulatory approval for our product candidates could severely harm our business.

*If we fail to obtain collaborative partners, or those we obtain fail to perform their obligations or discontinue clinical trials for particular product candidates, our ability to develop and market potential products could be severely limited.*

Our strategy for the development and commercialization of our product candidates depends, in large part, upon the formation of collaborative arrangements. Collaborations may allow us to:

- generate cash flow and revenue;



offset some of the costs associated with our internal research and development, preclinical testing, clinical trials and manufacturing;

seek and obtain regulatory approvals faster than we could on our own; and,

successfully commercialize existing and future product candidates.

We recently executed an agreement with Cardinal Health for the distribution of **Lymphoseek** in the United States. We do not currently have collaborative agreements covering **Lymphoseek** in other areas of the world or for **RIGScan CR** or **ACT**. We cannot assure you that we will be successful in securing collaborative partners for other markets or radiopharmaceutical products, or that we will be able to negotiate acceptable terms for such arrangements. The development, regulatory approval and commercialization of our product candidates will depend substantially on the efforts of collaborative partners, and if we fail to secure or maintain successful collaborative arrangements, or if our partners fail to perform their obligations, our development, regulatory, manufacturing and marketing activities may be delayed, scaled back or suspended.

*We rely on third parties for the worldwide marketing and distribution of our gamma detection and blood flow measurement devices, who may not be successful in selling our products.*

We currently distribute our gamma detection devices in most global markets through two partners who are solely responsible for marketing and distributing these products. The partners assume direct responsibility for business risks related to credit, currency exchange, foreign tax laws or tariff and trade regulation. Our blood flow products are marketed and sold in the U.S. and a number of foreign markets through other distribution partners specific to those markets. Further, we have had only limited success to date in marketing or selling our **Quantix** line of blood flow products. While we believe that our distribution partners intend to continue to aggressively market our products, we cannot assure you that the distribution partners will succeed in marketing our products on a global basis. We may not be able to maintain satisfactory arrangements with our marketing and distribution partners, who may not devote adequate resources to selling our products. If this happens, we may not be able to successfully market our products, which would decrease our revenues.

*Our radiopharmaceutical product candidates are subject to extensive government regulations and we may not be able to obtain necessary regulatory approvals.*

We may not receive the regulatory approvals necessary to commercialize our **Lymphoseek** and **RIGScan** product candidates, which could cause our business to be severely harmed. Our product candidates are subject to extensive and rigorous government regulation. FDA regulates, among other things, the development, testing, manufacture, safety, record-keeping, labeling, storage, approval, advertising, promotion, sale and distribution of pharmaceutical products. If our potential products are marketed abroad, they will also be subject to extensive regulation by foreign governments. None of our product candidates has been approved for sale in the United States or in any foreign market. The regulatory review and approval process, which includes preclinical studies and clinical trials of each product candidate, is lengthy, complex, expensive and uncertain. Securing FDA clearance to market requires the submission of extensive preclinical and clinical data and supporting information to FDA for each indication to establish the product candidate's safety and efficacy. Data obtained from preclinical and clinical trials are susceptible to varying interpretation, which may delay, limit or prevent regulatory approval. The approval process may take many years to complete and may involve ongoing requirements for post-marketing studies. In light of the limited regulatory history of monoclonal antibody-based therapeutics, regulatory approvals for our products may not be obtained without lengthy delays, if at all. Any FDA or other regulatory approvals of our product candidates, once obtained, may be withdrawn. The effect of government regulation may be to:

delay marketing of potential products for a considerable period of time;

limit the indicated uses for which potential products may be marketed;

impose costly requirements on our activities; and

provide competitive advantage to other pharmaceutical and biotechnology companies.

We may encounter delays or rejections in the regulatory approval process because of additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. Failure to comply with applicable FDA or other regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production or injunction, as well as other regulatory action against our product candidates or us. Outside the United States, our ability to market a product is contingent upon receiving clearances from the appropriate regulatory authorities. This foreign regulatory approval process includes risks similar to those associated with FDA approval process.

*Our radiopharmaceutical product candidates will remain subject to ongoing regulatory review even if they receive marketing approval. If we fail to comply with continuing regulations, we could lose these approvals and the sale of our products could be suspended.*

Even if we receive regulatory clearance to market a particular product candidate, the approval could be conditioned on us conducting additional costly post-approval studies or could limit the indicated uses included in our labeling. Moreover, the product may later cause adverse effects that limit or prevent its widespread use, force us to withdraw it from the market or impede or delay our ability to obtain regulatory approvals in additional countries. In addition, the manufacturer of the product and its facilities will continue to be subject to FDA review and periodic inspections to ensure adherence to applicable regulations. After receiving marketing clearance, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping related to the product will remain subject to extensive regulatory requirements. We may be slow to adapt, or we may never adapt, to changes in existing regulatory requirements or adoption of new regulatory requirements.

If we fail to comply with the regulatory requirements of FDA and other applicable U.S. and foreign regulatory authorities or previously unknown problems with our products, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions, including:

restrictions on the products, manufacturers or manufacturing processes;

warning letters;

civil or criminal penalties;

finances;

injunctions;

product seizures or detentions;

import bans;

voluntary or mandatory product recalls and publicity requirements;

suspension or withdrawal of regulatory approvals;

total or partial suspension of production; and

refusal to approve pending applications for marketing approval of new drugs or supplements to approved applications.

*Our existing products are highly regulated and we could face severe problems if we do not comply with all regulatory requirements in the global markets in which these products are sold.*

FDA regulates our gamma detection and blood flow measurement products in the United States. Foreign countries also subject these products to varying government regulations. In addition, these regulatory authorities may impose limitations on the use of our products. FDA enforcement policy strictly prohibits the marketing of FDA cleared

medical devices for unapproved uses. Within the European Union, our products are required to display the CE Mark in order to be sold. We have obtained FDA clearance to market and European certification to display the CE Mark on our current line of gamma detection systems and on initial blood flow product, the **Quantix/OR**. We may not be able to obtain clearance to market any new products in a timely manner, or at all. Failure to comply with these and other current and emerging regulatory requirements in the global markets in which our products are sold could result in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to grant pre-market clearance for devices, withdrawal of clearances, and criminal prosecution.

*We rely on third parties to manufacture our products and our business will suffer if they do not perform.*

We rely on independent contract manufacturers for the manufacture of our current **neo2000** line of gamma detection systems and for our **Quantix** line of blood flow monitoring products. Our business will suffer if our contract manufacturers have production delays or quality problems. Furthermore, medical device manufacturers are subject to the QSR of FDA, international quality standards, and other regulatory requirements. If our contractors do not operate in accordance with regulatory requirements and quality standards, our business will suffer. We use or rely on components and services used in our devices that are provided by sole source suppliers. The qualification of additional or replacement vendors is time consuming and costly. If a sole source supplier has significant problems supplying our products, our sales and revenues will be hurt until we find a new source of supply. In addition, our distribution agreement with Ethicon Endo-Surgery, Inc. (EES) for gamma detection devices contains failure to supply provisions, which, if triggered, could have a significant negative impact on our business.

*We may be unable to establish the pharmaceutical manufacturing capabilities necessary to develop and commercialize our potential products.*

We do not have our own manufacturing facility for the manufacture of the radiopharmaceutical compounds necessary for clinical testing or commercial sale. We intend to rely in part on third-party contract manufacturers to produce sufficiently large quantities of drug materials that are and will be needed for clinical trials and commercialization of our potential products. Third-party manufacturers may not be able to meet our needs with respect to timing, quantity or quality of materials. If we are unable to contract for a sufficient supply of needed materials on acceptable terms, or if we should encounter delays or difficulties in our relationships with manufacturers, our clinical trials may be delayed, thereby delaying the submission of product candidates for regulatory approval and the market introduction and subsequent commercialization of our potential products. Any such delays may lower our revenues and potential profitability.

We may develop our manufacturing capacity in part by expanding our current facilities or building new facilities. Either of these activities would require substantial additional funds and we would need to hire and train significant numbers of employees to staff these facilities. We may not be able to develop manufacturing facilities that are sufficient to produce drug materials for clinical trials or commercial use. We and any third-party manufacturers that we may use must continually adhere to current Good Manufacturing Practices regulations enforced by FDA through its facilities inspection program. If our facilities or the facilities of third-party manufacturers cannot pass a pre-approval plant inspection, FDA will not grant approval to our product candidates. In complying with these regulations and foreign regulatory requirements, we and any of our third-party manufacturers will be obligated to expend time, money and effort on production, record-keeping and quality control to assure that our potential products meet applicable specifications and other requirements. If we or any third-party manufacturer with whom we may contract fail to maintain regulatory compliance, we or the third party may be subject to fines and/or manufacturing operations may be suspended.

*Unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives applicable to our radiopharmaceutical products and product candidates could limit our potential product revenue.*

The regulations governing drug pricing and reimbursement vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed and, in many of these countries, the pricing review period begins only after approval is granted. In some countries, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. Although we monitor these regulations, our product candidates are currently in the development stage and we will not be able to assess the impact of price regulations for at least several years. As a result, we may obtain regulatory approval for a product in a particular country, but then be subject to price regulations that may delay the commercial launch of the product and may negatively impact the revenues we are able to derive from sales in that country.

The healthcare industry is undergoing fundamental changes resulting from political, economic and regulatory influences. In the United States, comprehensive programs have been proposed that seek to increase access to healthcare for the uninsured, control the escalation of healthcare expenditures within the economy and use healthcare reimbursement policies to balance the federal budget.

We expect that Congress and state legislatures will continue to review and assess healthcare proposals, and public debate of these issues will likely continue. We cannot predict which, if any, of such reform proposals will be adopted and when they might be adopted. Other countries also are considering healthcare reform. Significant changes in healthcare systems could have a substantial impact on the manner in which we conduct our business and could require us to revise our strategies.

*The sale of our common stock to Fusion may cause dilution and the sale of common stock acquired by Fusion could cause the price of our common stock to decline.*

In connection with our agreement with Fusion, we have authorized the sale of up to 12,000,000 shares of our common stock and the issuance of 1,440,000 shares in commitment fees, and we filed a registration statement with the SEC for the sale to the public of the entire 13,440,000 shares. Through April 30, 2008, we have sold Fusion 7,568,671 million shares of common stock and issued 954,000 shares of stock as commitment fees to Fusion. The number of shares ultimately offered for sale to the public will be dependent upon the number of shares purchased by Fusion under the agreement. It is anticipated that these shares will be sold over a period of up to 24 months from the date of the agreement, at prices that will fluctuate based on changes in the market price of our common stock over that period.

Depending upon market liquidity at the times sales are made, these sales could cause the market price of our common stock to decline. Consequently, sales to Fusion may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock by Fusion, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. However, we have the right to control the timing and amount of any sales of our shares to Fusion and the agreement may be terminated by us at any time at our discretion without any cost to us.

*The sale of the shares of common stock acquired in private placements could cause the price of our common stock to decline.*

During 2003 and 2007, we completed financings in which we issued common stock, convertible notes, warrants and other securities convertible into common stock to certain private investors. The terms of these transactions require that we file registration statements with the Securities and Exchange Commission (SEC) under which the investors may resell to the public common stock acquired in these transactions, as well as common stock acquired on the exercise of the warrants and convertible securities held by them.

The selling stockholders under these registration statements may sell none, some or all of the shares of common stock acquired from us, as well as common stock acquired on the exercise of the warrants and convertible securities held by them. We have no way of knowing whether or when the selling stockholders will sell the shares covered by these registration statements. Depending upon market liquidity at the time, a sale of shares covered by these registration statements at any given time could cause the trading price of our common stock to decline. The sale of a substantial number of shares of our common stock under these registration statements, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

*We may lose out to larger and better-established competitors.*

The medical device and biotechnology industries are intensely competitive. Some of our competitors have significantly greater financial, technical, manufacturing, marketing and distribution resources as well as greater experience in the medical device industry than we have. The particular medical conditions our product lines address can also be addressed by other medical devices, procedures or drugs. Many of these alternatives are widely accepted by physicians and have a long history of use. Physicians may use our competitors' products and/or our products may not be competitive with other technologies. If these

things happen, our sales and revenues will decline. In addition, our current and potential competitors may establish cooperative relationships with large medical equipment companies to gain access to greater research and development or marketing resources. Competition may result in price reductions, reduced gross margins and loss of market share.

*Our products may be displaced by newer technology.*

The medical device and biotechnology industries are undergoing rapid and significant technological change. Third parties may succeed in developing or marketing technologies and products that are more effective than those developed or marketed by us, or that would make our technology and products obsolete or non-competitive. Additionally, researchers could develop new surgical procedures and medications that replace or reduce the importance of the procedures that use our products. Accordingly, our success will depend, in part, on our ability to respond quickly to medical and technological changes through the development and introduction of new products. We may not have the resources to do this. If our products become obsolete and our efforts to develop new products do not result in any commercially successful products, our sales and revenues will decline.

*We may not have sufficient legal protection against infringement or loss of our intellectual property, and we may lose rights to our licensed intellectual property if diligence requirements are not met.*

Our success depends, in part, on our ability to secure and maintain patent protection, to preserve our trade secrets, and to operate without infringing on the patents of third parties. While we seek to protect our proprietary positions by filing United States and foreign patent applications for our important inventions and improvements, domestic and foreign patent offices may not issue these patents. Third parties may challenge, invalidate, or circumvent our patents or patent applications in the future. Competitors, many of which have significantly more resources than we have and have made substantial investments in competing technologies, may apply for and obtain patents that will prevent, limit, or interfere with our ability to make, use, or sell our products either in the United States or abroad.

In the United States, patent applications are secret until patents are issued, and in foreign countries, patent applications are secret for a time after filing. Publications of discoveries tend to significantly lag the actual discoveries and the filing of related patent applications. Third parties may have already filed applications for patents for products or processes that will make our products obsolete or will limit our patents or invalidate our patent applications.

We typically require our employees, consultants, advisers and suppliers to execute confidentiality and assignment of invention agreements in connection with their employment, consulting, advisory, or supply relationships with us. They may breach these agreements and we may not obtain an adequate remedy for breach. Further, third parties may gain access to our trade secrets or independently develop or acquire the same or equivalent information.

Agencies of the United States government conducted some of the research activities that led to the development of antibody technology that some of our proposed antibody-based surgical cancer detection products use. When the United States government participates in research activities, it retains rights that include the right to use the technology for governmental purposes under a royalty-free license, as well as rights to use and disclose technical data that could preclude us from asserting trade secret rights in that data and software.

The patents underlying our radiopharmaceutical products and ACT technology are exclusively licensed to us by third parties, and the relevant license agreements require us to use diligence in the development and commercialization of products using the licensed patents. Our failure to meet the diligence requirements in any license agreement may result in our loss of some or all of our license rights to the patents licensed thereunder.

*The government grants Cardiosonix has received for research and development expenditures restrict our ability to manufacture blood flow monitoring products and transfer technologies outside of Israel and require us to satisfy specified conditions. If we fail to satisfy these conditions, we may be required to refund grants previously received together with interest and penalties, and may be subject to criminal charges.*

Cardiosonix received grants from the government of Israel through the Office of the Chief Scientist (OCS) of the Ministry of Industry and Trade for the financing of a portion of its research and development expenditures associated with our blood flow monitoring products. From 1998 to 2001, Cardiosonix received grants totaling \$775,000 from the OCS. The terms of the OCS grants may affect our efforts to transfer manufacturing of products developed using these grants outside of Israel without special approvals. In January 2006, the OCS consented to the transfer of manufacturing as long as Neoprobe complies with the terms of the OCS statutes under Israeli law. As long as we maintain at least 10% Israeli content in our blood flow devices, we will pay a royalty rate of 4% on sales of applicable blood flow devices and must repay the OCS a total of \$1.2 million in royalties. However, should the amount of Israeli content of our blood flow device products decrease below 10%, the royalty rate could increase to 5% and the total royalty payments due could increase to \$2.3 million. This may impair our ability to effectively outsource manufacturing or engage in similar arrangements for those products or technologies. In addition, if we fail to comply with any of the conditions imposed by the OCS, we may be required to refund any grants previously received together with interest and penalties, and may be subject to criminal charges. In recent years, the government of Israel has accelerated the rate of repayment of OCS grants related to other grantees and may further accelerate them in the future.

*We may lose the license rights to certain in-licensed products if we do not exercise adequate diligence.*

Our license agreements for **Lymphoseek**, **RIGS**, and **ACT** contain provisions that require that we demonstrate ongoing diligence in the continuing research and development of these potential products. Cirra Bio's rights to certain applications of the ACT technology may be affected by its failure to achieve certain capital raising milestones although no such notices to that effect have been received to date. We have provided information, as required or requested, to the licensors of our technology indicating the steps we have taken to demonstrate our diligence and believe we are adequately doing so to meet the terms and/or intent of our license agreements. However, it is possible that the licensors may not consider our actions adequate in demonstrating such diligence. Should we fail to demonstrate the requisite diligence required by any such agreements or as interpreted by the respective licensors, we may lose our development and commercialization rights for the associated product.

*We could be damaged by product liability claims.*

Our products are used or intended to be used in various clinical or surgical procedures. If one of our products malfunctions or a physician misuses it and injury results to a patient or operator, the injured party could assert a product liability claim against our company. We currently have product liability insurance with a \$10 million per occurrence limit, which we believe is adequate for our current activities. However, we may not be able to continue to obtain insurance at a reasonable cost. Furthermore, insurance may not be sufficient to cover all of the liabilities resulting from a product liability claim, and we might not have sufficient funds available to pay any claims over the limits of our insurance. Because personal injury claims based on product liability in a medical setting may be very large, an underinsured or an uninsured claim could financially damage our company.

*We may have difficulty attracting and retaining qualified personnel and our business may suffer if we do not.*

Our business has experienced challenges the past two years that have resulted in several significant changes in our strategy and business plan, including the shifting of resources to support our current product initiatives and downsizings to what we consider to be the minimal support structure necessary to operate a publicly traded company. Our management will need to remain flexible to support our business model over the next few years. However, losing members of the Neoprobe management team could have an adverse effect on our operations. Our success depends on our ability to attract and retain technical and management personnel with expertise and experience in the medical device business. The



competition for qualified personnel in the medical device industry is intense and we may not be successful in hiring or retaining the requisite personnel. If we are unable to attract and retain qualified technical and management personnel, we will suffer diminished chances of future success.

*Our secured indebtedness imposes significant restrictions on us, and a default could cause us to cease operations.*

All of our material assets have been pledged as collateral for the \$7 million in principal amount of our Series A Convertible Notes, issued to Montaur and a \$1 million in principal amount Series B Convertible Note issued to our CEO and members of his family dated July 3, 2007, as amended December 26, 2007 (collectively, the Notes). In addition to the security interest in our assets, the Notes carry substantial covenants that impose significant requirements on us, including, among others, requirements that:

we pay all principal by December 26, 2011;

we use the proceeds from the sale of the Notes only for permitted purposes, such as **Lymphoseek** development and general corporate purposes;

we keep reserved out of our authorized shares of common stock sufficient shares to satisfy our obligation to issue shares on conversion of the Notes and the exercise of the warrants issued in connection with the sale of the Notes; and

we indemnify the purchasers of the Notes against certain liabilities.

Additionally, with certain exceptions, the Notes prohibit us from:

amending our organizational or governing agreements and documents, entering into any merger or consolidation, dissolving the company or liquidating its assets, or acquiring all or any substantial part of the business or assets of any other person;

engaging in transactions with any affiliate;

entering into any agreement inconsistent with our obligations under the Notes and related agreements;

incurring any indebtedness, capital leases, or contingent obligations outside the ordinary course of business;

granting or permitting liens against or security interests in our assets;

making any material dispositions of our assets outside the ordinary course of business;

declaring or paying any dividends or making any other restricted payments; or

making any loans to or investments in other persons outside of the ordinary course of business.

Our ability to comply with these provisions may be affected by changes in our business condition or results of our operations, or other events beyond our control. The breach of any of these covenants would result in a default under the Notes, permitting the holders of the Notes to accelerate their maturity and to sell the assets securing them. Such actions by the holders of the Notes could cause us to cease operations or seek bankruptcy protection.

*Our common stock is traded over the counter, which may deprive stockholders of the full value of their shares.*

Our common stock is quoted via the OTC Bulletin Board. As such, our common stock may have fewer market makers, lower trading volumes and larger spreads between bid and asked prices than securities listed on an exchange such as the New York Stock Exchange or the NASDAQ Stock Market. These factors may result in higher price volatility and less market liquidity for the common stock.

*A low market price may severely limit the potential market for our common stock.*

Our common stock is currently trading at a price substantially below \$5.00 per share, subjecting trading in the stock to certain SEC rules requiring additional disclosures by broker-dealers. These rules generally apply to any

non-NASDAQ equity security that has a market price share of less than \$5.00 per share, subject to certain exceptions (a penny stock ). Such rules require the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated

therewith and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and institutional or wealthy investors. For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole market maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could discourage broker-dealers from effecting transactions in our common stock.

*The price of our common stock has been highly volatile due to several factors that will continue to affect the price of our stock.*

Our common stock traded as low as \$0.19 per share and as high as \$0.59 per share during the 12-month period ended April 30, 2008. The market price of our common stock has been and is expected to continue to be highly volatile. Factors, including announcements of technological innovations by us or other companies, regulatory matters, new or existing products or procedures, concerns about our financial position, operating results, litigation, government regulation, developments or disputes relating to agreements, patents or proprietary rights, may have a significant impact on the market price of our stock. In addition, potential dilutive effects of future sales of shares of common stock by the company and by stockholders, and subsequent sale of common stock by the holders of warrants and options could have an adverse effect on the market price of our shares.

Some additional factors which could lead to the volatility of our common stock include:

price and volume fluctuations in the stock market at large which do not relate to our operating performance;

financing arrangements we may enter that require the issuance of a significant number of shares in relation to the number of shares currently outstanding;

public concern as to the safety of products that we or others develop; and

fluctuations in market demand for and supply of our products.

*An investor's ability to trade our common stock may be limited by trading volume.*

Generally, the trading volume for our common stock has been relatively limited. A consistently active trading market for our common stock may not occur on the OTCBB. The average daily trading volume for our common stock on the OTCBB for the 12-month period ended December 31, 2007 was approximately 140,000 shares.

*Some provisions of our organizational and governing documents may have the effect of deterring third parties from making takeover bids for control of our company or may be used to hinder or delay a takeover bid.*

Our certificate of incorporation authorizes the creation and issuance of blank check preferred stock. Our Board of Directors may divide this stock into one or more series and set their rights. The Board of Directors may, without prior stockholder approval, issue any of the shares of blank check preferred stock with dividend, liquidation, conversion, voting or other rights, which could adversely affect the relative voting power or other rights of the common stock.

Preferred stock could be used as a method of discouraging, delaying, or preventing a take-over of our company. If we issue blank check preferred stock, it could have a dilutive effect upon our common stock. This would decrease the chance that our stockholders would realize a premium over market price for their shares of common stock as a result of a takeover bid.

*Because we will not pay dividends in the foreseeable future, stockholders will only benefit from owning common stock if it appreciates.*

We have never paid dividends on our common stock and we do not intend to do so in the foreseeable future. We intend to retain any future earnings to finance our growth. Accordingly, any potential investor who anticipates the need for current dividends from his investment should not purchase our common stock.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Such forward-looking statements include statements regarding, among other things, (a) our projected sales and profitability, (b) our growth strategies, (c) anticipated trends in our industry, (d) our future financing plans, and (e) our anticipated needs for working capital. Forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations, are generally identifiable by use of the words *may*, *will*, *should*, *expect*, *anticipate*, *estimate*, *believe*, *intend*, or the negative of these words or other variations on these words or comparable terminology. This information may involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from the future results, performance, or achievements expressed or implied by any forward-looking statements. These statements may be found under *Management's Discussion and Analysis of Financial Condition and Results of Operations and Business*, as well as in this prospectus generally. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under *Risk Factors* and matters described in this prospectus generally. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this filing will in fact occur.

We undertake no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

**USE OF PROCEEDS**

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholder. We will receive no proceeds from the sale of shares of common stock in this offering. However, we may receive up to \$6.0 million in proceeds from the sale of our common stock to Fusion Capital under the common stock purchase agreement. Any proceeds from Fusion Capital we receive under the common stock purchase agreement will be used for working capital and general corporate purposes.

**CAPITALIZATION**

The following table sets forth our cash, other assets, debt and capitalization as of December 31, 2007, as follows: on an actual basis; and

on a pro forma bases to give effect to certain material financing activities that occurred subsequent to December 31, 2007 related to our financing transaction with Platinum-Montaur Life Sciences, LLC (Montaur). Specifically, the adjustments relate to amendments to the Montaur Series A Note and the Montaur Series W Warrant which were issued in connection with the first closing for \$7 million which closed on December 26, 2007, and to the Montaur Series B Note and the Montaur Series X Warrant which were issued in connection with the second closing for \$3 million on April 16, 2008.

The table does not include the effect of the shares registered in this Registration Statement as the shares registered are for a secondary offering by selling shareholders.

|                                      | December 31,<br>2007<br>Actual | Adjustments |        | December 31,<br>2007<br>Pro Forma |
|--------------------------------------|--------------------------------|-------------|--------|-----------------------------------|
| Cash                                 | \$ 1,540,220                   | 2,820,000   | (1)    | \$ 4,360,220                      |
| Other assets                         | 527,634                        | 180,000     | (1)    | 707,634                           |
| Current liabilities                  | 2,170,908                      |             |        | 2,170,908                         |
| Long-term liabilities                | 8,835,633                      | (2,094,552) | (1)(2) | 6,741,081                         |
| Stockholders' deficit:               |                                |             |        |                                   |
| Preferred stock                      |                                |             |        |                                   |
| Common stock                         | 67,240                         |             |        | 67,240                            |
| Additional paid-in capital           | 136,765,697                    | 5,481,299   | (1)(2) | 142,246,996                       |
| Accumulated deficit                  | (140,776,531)                  | (386,747)   | (2)    | (141,163,278)                     |
| Total stockholders' (deficit) equity | (3,943,594)                    | 5,094,552   |        | 1,150,958                         |
| Total capitalization                 | \$ 7,062,947                   |             |        | \$ 10,062,947                     |

(1) As a result of issuance of the Series B Note with the Series X Warrant in April 2008, the Company increased cash by \$2,820,000, other assets by \$180,000, long term liabilities by \$443,695,

and additional paid-in capital related to the beneficial conversion feature and the warrant by \$2,556,305.

- (2) As a result of the amendment of the Series A Note and the Series W Warrant in March 2008, the Company decreased liabilities by \$2,538,247, increased additional paid-in capital by \$2,924,994, and increased accumulated deficit by \$386,747 due to mark-to-market adjustments of derivative instruments recorded through March 31, 2008.

**MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

Our common stock trades on the OTCBB under the trading symbol NEOP. The prices set forth below reflect the quarterly high, low and closing sales prices for shares of our common stock during the last two fiscal years, or the current fiscal year through April 30, 2008, as reported by Reuters Limited. These quotations reflect inter-dealer prices, without retail markup, markdown or commission, and may not represent actual transactions.

|                                       | <i>High</i> | <i>Low</i> | <i>Close</i> |
|---------------------------------------|-------------|------------|--------------|
| <i>Fiscal Year 2008</i>               |             |            |              |
| First Quarter                         | \$0.42      | \$0.29     | \$0.35       |
| Second Quarter through April 30, 2008 | 0.59        | 0.34       | 0.54         |
| <i>Fiscal Year 2007:</i>              |             |            |              |
| First Quarter                         | \$0.27      | \$0.20     | \$0.24       |
| Second Quarter                        | 0.32        | 0.19       | 0.31         |
| Third Quarter                         | 0.50        | 0.23       | 0.31         |
| Fourth Quarter                        | 0.35        | 0.25       | 0.29         |
| <i>Fiscal Year 2006:</i>              |             |            |              |
| First Quarter                         | \$0.36      | \$0.25     | \$0.29       |
| Second Quarter                        | 0.30        | 0.23       | 0.26         |
| Third Quarter                         | 0.33        | 0.23       | 0.33         |
| Fourth Quarter                        | 0.34        | 0.22       | 0.24         |

As of March 14, 2008, we had approximately 779 holders of common stock of record. On April 30, 2008, the last reported sale price for our common stock as reported on the OTCBB was \$0.54 per share.

We have not paid any dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. We intend to retain any earnings to finance the growth of our business. We cannot assure you that we will ever pay cash dividends. Whether we pay cash dividends in the future will be at the discretion of our Board of Directors and will depend upon our financial condition, results of operations, capital requirements and any other factors that the Board of Directors decides are relevant. See Management's Discussion and Analysis of Financial Condition and Results of Operations.

## DESCRIPTION OF BUSINESS

### Development of the Business

Neoprobe Corporation (Neoprobe, the company or we) is a biomedical company that develops and commercializes innovative products that enhance patient care and improve patient outcome by meeting the critical intraoperative diagnostic information needs of physicians and therapeutic treatment needs of patients. We were originally incorporated in Ohio in 1983 and reincorporated in Delaware in 1988. Our executive offices are located at 425 Metro Place North, Suite 300, Dublin, Ohio 43017. Our telephone number is (614) 793-7500.

From our inception through 1998, we devoted substantially all of our efforts and resources to the research and clinical development of radiopharmaceutical and medical device technologies related to the intraoperative diagnosis and treatment of cancers, including our proprietary radioimmunoguided surgery (**RIGS**<sup>®</sup>) technology. In 1998, U.S. and European regulatory agencies completed an evaluation of the status of the regulatory pathway for our **RIGS** products, which coupled with our limited financial resources, caused us to suspend our radiopharmaceutical development activities and refocus our operating strategy on our medical device business. After achieving profitability in the fourth quarter of 1999 following this retrenchment, we expanded our medical device offerings in 2002 following the acquisition of an Israeli company that was developing a line of blood flow measurement devices.

Although we had expanded our strategic focus with the addition of blood flow measurement devices, we continued to look for other avenues to reinvigorate our radiopharmaceutical development portfolio. During 2004, our efforts resulted in a number of positive events that caused us to take steps to re-activate our radiopharmaceutical and therapeutic initiatives. As a result of our efforts over the past few years, we now have one radiopharmaceutical product, Lymphoseek<sup>®</sup>, on the verge of commencing two pivotal Phase 3 clinical trials, and a second, RIGScan<sup>®</sup> CR, nearing a greater level of activity as we seek to clarify the regulatory pathway and identify potential development sources of funding or collaboration. Our subsidiary, Cira Biosciences, Inc. (Cira Bio), also took steps in early 2008 to identify funding sources to assist it in evaluating the market opportunities for yet another technology platform, activated cellular therapy (ACT).

We believe that our virtual business model is unique within our industry as it combines revenue generation from medical devices covering our public company overhead while we devote capital raised through financing efforts to the development of products with even greater potential for shareholder return such as Lymphoseek. In addition, we have sought to maintain a development pipeline with additional longer-term return potential such as RIGScan CR and ACT that provide the opportunity for incremental return on the achievement of key development and funding milestones.

### Our Technology

#### *Gamma Detection Devices*

Through 2007, our line of gamma radiation detection devices has generated substantially all of our revenue. Our gamma detection systems are used by surgeons in the diagnosis and treatment of cancer and related diseases. Our currently-marketed line of gamma detection devices has been cleared by the U.S. Food and Drug Administration (FDA) and other international regulatory agencies for marketing and commercial distribution throughout most major global markets.

Our patented gamma detection device systems consist of hand-held detector probes and a control unit. The critical detection component is a highly radiosensitive crystal contained in the tip of the probe that relays a signal through a preamplifier to the control unit to produce both a digital readout and an audible signal. The detector element fits into a housing approximately the size of a pen flashlight. The **neo2000**<sup>®</sup> Gamma Detection System, originally released in 1998, is the third generation of our gamma detection systems. The **neo2000** is designed as a platform for future growth of our instrument business. The **neo2000** is software upgradeable and is designed to support future surgical targeting probes without the necessity of costly remanufacture. Since 1998, we have developed and released four major software upgrades for customer units designed to improve the utility of the system and/or offer the users additional



features, including our most recent release that enables our entire installed base of **neo2000** users to use our wireless gamma detection probes based on Bluetooth® technology which were commercially launched in late 2006. Generally, these software upgrades have been included in new units offered for sale but have also been offered for sale separately.

Surgeons are using our gamma detection devices in a surgical application referred to as sentinel lymph node biopsy (SLNB) or intraoperative lymphatic mapping (ILM or lymphatic mapping). SLNB helps trace the lymphatic drainage patterns in a cancer patient to evaluate potential tumor drainage and cancer spread in lymphatic tissue. The technique does not detect cancer; rather it helps surgeons identify the lymph node(s) to which a tumor is likely to drain and spread. The lymph node(s), sometimes referred to as the sentinel node(s), may provide critical information about the stage of a patient's disease. SLNB begins when a patient is injected at the site of the main tumor with a commercially available radioactive tracing agent. The agent is intended to follow the same lymphatic flow as the cancer would have if it had metastasized. The surgeon may then track the agent's path with a hand-held gamma radiation detection probe, thus following the potential avenues of metastases and identifying lymph nodes to be biopsied for evaluation and determination of cancer spread.

Numerous clinical studies, involving a total of nearly 2,000 patients and published in peer-reviewed medical journals such as *Oncology* (January 1999) and *The Journal of The American College of Surgeons* (December 2000), have indicated SLNB is approximately 97% accurate in predicting the presence or absence of disease spread in melanoma and breast cancers. Consequently, it is estimated that more than 80% of breast cancer patients who would otherwise have undergone full axillary lymph node dissections (ALND), involving the removal of as many as 20-30 lymph nodes, might be spared this radical surgical procedure if the sentinel node was found to be free of cancer. Surgeons practicing SLNB have found that our gamma detection probes are well-suited to the procedure.

Hundreds of articles have been published in recent years in peer-reviewed journals on the topic of SLNB.

Furthermore, a number of thought leaders and cancer treatment institutions have recognized and embraced the technology as standard of care for melanoma and for breast cancer. Our marketing partner continues to see strong sales, especially for use in breast cancer treatment. SLNB in breast cancer has been the subject of national and international clinical trials, including one major study sponsored by the U.S. Department of Defense and the National Cancer Institute (NCI) and one sponsored by the American College of Surgeons. The first of these trials completed accrual approximately three years ago and preliminary results may be available sometime in 2009. Accrual on the second trial was halted early, due, we believe, to the overwhelming desire of patients to be treated with SLNB rather than be randomized in a trial whereby they might receive a full axillary dissection. We believe that once data from these trials are published there may be an additional demand for our devices from those surgeons who have not yet adopted the SLNB procedure. We also believe, based on an estimate of the total number of operating rooms in medical centers that are capable of performing the types of procedures in which our gamma detection devices are used, that while we are potentially reaching saturation at the major cancer centers and teaching institutions, a significant portion of the global market for gamma detection devices such as ours remains untapped. We also believe we are beginning to see the development of a replacement device market in the gamma detection device sector, aided in part by new offerings such as our wireless probe, as devices purchased over ten years ago during the early years of lymphatic mapping begin to be retired.

Although lymphatic mapping has found its greatest acceptance thus far in breast cancer and melanoma, we believe that **Lymphoseek** may be instrumental in extending SLNB into other solid tumor cancers in which surgeons are currently investigating such as prostate, gastric, colon, head and neck, and non-small cell lung cancers. Surgeons have also been using our devices for other gamma-guided surgery applications, such as evaluating the thyroid function and conducting parathyroid surgery, and in determining the state of disease in patients with vulvar and penile cancers. Expanding the application of SLNB beyond the current primary uses in the treatment of breast cancer and melanoma is a primary focus of our strategy regarding our gamma-guided surgery products and is consistent with our Phase 3 Lymphoseek clinical trial strategy. To support that expansion, we continue to work with our marketing and distribution partners to develop additional software-based enhancements to the **neo2000** platform as well as our new wireless probes introduced in late 2006. To that end, our goals for our gamma detection device business for 2008 center on working with our marketing partners to develop additional product



offerings that will support the use of SLNB to other indications and expand into other surgical gamma detection applications.

*Blood Flow Measurement Devices*

Accurate blood flow measurement is essential for a variety of clinical needs, including:

real-time monitoring;

intra-operative quantification;

non-invasive diagnostics; and

evaluation of cardiac function.

Blood flow velocity measurements are often confused with volume blood flow. These two variables, however, are normally different parameters that respond differently to pathological conditions and provide different data. Blood flow velocity is used primarily for determining the existence of a stenosis (narrowing or obstruction) in the vascular surgery setting, while the applications of blood flow volume have potential impact across a much broader range of medical disciplines.

Cardiosonix has developed and is commercializing the **Quantix** product line that employs a unique and proprietary technology for measurement of blood flow volume, velocity and several other hemodynamic parameters, permitting the real-time assessment of conduit hemodynamic status.

The **Quantix** technology utilizes a special application of the Doppler method through simultaneous projection of a combination of narrow beams with a known angle between them. Thus, based on trigonometric and Doppler considerations, the angle of insonation can be obtained, resulting in accurate, angle-independent blood flow velocity measurements that do not require the use of complicated, expensive imaging systems. In order to obtain high-resolution velocity profiles, the **Quantix** device uses a multi-gated pulse wave Doppler beam. With this method, specific sample volumes along the ultrasound beam can be separately evaluated, and the application of a flow/no flow criterion can be made. The Cardiosonix technology applies a special use of digital Doppler technology, which with the digital signal processing power of the system allows hundreds of sample volumes to be sampled and processed simultaneously, thus providing high resolution velocity profiles for both angle and vascular diameter calculations, and subsequently volume blood flow measurements. Through 2007, we have focused our blood flow measurement efforts on measuring blood flow in cardiac bypass grafts. The technology also has the potential to be applied in other healthcare settings where measurement of blood flow may be beneficial. We have recently begun devoting additional efforts in modifying the device for use in vascular assessment, particularly associated with dialysis applications.

**Quantix/OR**<sup>TM</sup> is designed to permit cardiovascular surgeons to obtain intraoperative volume blood flow readings in various targeted blood vessels within seconds. The system consists of an insonation angle-independent ultrasound probe and digital numerical displays of blood flow rate. Thus, the surgeon obtains immediate, real-time and quantitative readings while focused on the target vessel. Quantifying blood flow can be very beneficial during anastomotic or other bypass graft procedures to determine adequate blood flow. While measurement is advisable whenever a blood vessel is exposed and manipulated intra-operatively, generally this is not the current practice. Ultimately, in practice, the surgeon typically resorts to using his or her eyes and fingers in a process called finger palpation to qualitatively assess vessel flow. The **Quantix/OR** offers the surgeon immediate and simple quantitative assessment of blood flow in multiple blood vessels and grafts. The primary advantage of finger palpation is that it is fast, simple and low cost; the disadvantages are that it requires a good deal of experience, it is difficult to perform in vessels embedded in tissue, it can become difficult to interpret in large vessels, and it permits only a very qualitative and subjective assessment. A significant partial occlusion (or even a total occlusion) will result in significant vessel distention and strong pulse that may mislead the surgeon. Rather than rely on such a subjective clinical practice, which is highly experience-dependent, the **Quantix/OR** is designed to allow the surgeon to rely on more quantifiable and objective information. We believe that **Quantix/OR** represents a measurable improvement over existing technologies to directly measure blood flow intraoperatively. Other technologies that attempt to measure intraoperative blood flow directly are generally more invasive and are impractical when non-skeletonized



vessel measurements are required. As a result, a majority of surgeons generally resort to finger palpation to qualitatively, rather than quantitatively, measure vessel perfusion.

Physician and distributor evaluation of the initial **Quantix** product, the **Quantix/OR**, during 2004 indicated a number of design deficiencies that needed to be corrected before further commercial distribution of the product was advisable. The development activities for the **Quantix/OR** since 2004 have therefore involved modification of the user interface software functions and a redesign of the **Quantix/OR** probe ergonomics to enhance system performance, improve ease of measurement and expand physician acceptance of the system. The **Quantix/OR** device has received CE mark regulatory clearance for marketing in the European Union (EU) as well as FDA 510(k) clearance for marketing in the United States.

Our strategy related to Cardiosonix products for 2008 is to work with our marketing and distribution partners to continue to support the penetration of the **Quantix/OR** in cardiovascular applications. In addition, we will work with thought leaders and clinicians in identifying and capitalizing on opportunities in the vascular assessment/dialysis markets. We cannot assure you, however, that any of Cardiosonix's products will achieve market acceptance. See Risk Factors.

#### *Lymphoseek*

Our gamma detection devices are primarily capital in nature; as such, they generate revenue only on the initial sale. To complement the one-time revenue stream related to capital products, we are working on developing recurring revenue or procedural products that would generate revenue based on each procedure in which they were used. The product we are working on with the greatest near-term potential in this area involves a proprietary drug compound under exclusive worldwide license from the University of California, San Diego (UCSD) that we refer to as **Lymphoseek**. The UCSD license grants Neoprobe the commercialization rights to **Lymphoseek** for diagnostic imaging and intraoperative detection applications. If proven effective and cleared for commercial sale, **Lymphoseek** would be the first radiopharmaceutical product specifically designed and labeled for the targeting of sentinel lymph nodes. Neoprobe and UCSD completed the initial pre-clinical evaluations of **Lymphoseek** in 2001. Since that time, UCSD has completed or initiated five Phase 1 clinical trials involving **Lymphoseek**. The status of these trials is listed below:

| Indication                                       | Number of Patients | Status    |
|--|--------------------|-----------|
| Breast (peritumoral injection)                   | 24                 | Completed |
| Melanoma   | 24                 | Completed |
| Breast (intradermal injection, next day surgery) | 60                 | Ongoing   |
| Prostate   | 20                 | Ongoing   |
| Colon  | 20                 | Ongoing   |

These Phase 1 studies were or are being supported, including being substantially funded through research grants, by a number of organizations such as the Susan G. Komen Breast Cancer Research Foundation, the American Cancer Society (ACS) and the NCI. Research data from some of these clinical evaluations of **Lymphoseek** have been presented at recent meetings of the Society of Nuclear Medicine, the Society of Surgical Oncology and the World Sentinel Node Congress. The ongoing breast, prostate and colon studies are being conducted under Neoprobe's investigational new drug (IND) application that has been cleared with FDA using drug product supplied by Neoprobe. In November 2003, we met with the Interagency Council on Biomedical Imaging in Oncology (Interagency Council), an organization representing FDA, the NCI and the Centers for Medicare and Medicaid Services, to discuss the regulatory approval process and to determine the objectives for the next clinical trial involving **Lymphoseek**. During 2004, we prepared and submitted an IND application to FDA to support the marketing clearance of **Lymphoseek**.

In the first quarter of 2005, we announced that FDA had accepted our application to establish a corporate IND for **Lymphoseek**. With the transfer of the UCSD physician IND to Neoprobe, we assumed full clinical and commercial responsibility for the development of **Lymphoseek**. Following the establishment of the corporate IND, Neoprobe's clinical and regulatory personnel began discussions with FDA regarding the clinical development program for **Lymphoseek**.

As a first in class drug, Neoprobe was advised that additional non-clinical studies needed to be completed before additional clinical testing of the drug could occur in humans. The non-clinical testing was successfully completed in the fourth quarter of 2005 and the reports were filed with FDA in December. The seven studies included repeat administrations of **Lymphoseek** at dosages significantly in excess of the anticipated clinical dosage. None of the non-clinical studies revealed any toxicity issues associated with the drug.

Upon the submission of the IND and draft Phase 2 protocol, FDA advised Neoprobe that commercially produced **Lymphoseek** would need to be used in the Phase 2 clinical study, as opposed to using drug previously manufactured in laboratories at UCSD. Also, the regulatory agencies raised a number of Chemistry, Manufacturing and Control (CMC) questions regarding the drug compound and its complete characterization. Neoprobe began the transfer of bulk drug manufacturing to Reliable Biopharmaceutical Corporation (Reliable) early in 2005 and engaged Cardinal Health, Inc. (Cardinal Health) to develop and validate procedures and assays to establish commercial standards for the formulation, filling and lyophilization of the drug compound. We submitted an initial CMC response to FDA in April 2006.

We received clearance from FDA in May 2006 to move forward with patient enrollment for a multi-center Phase 2 clinical study of **Lymphoseek**. The first of our Phase 2 clinical sites received clearance from its internal clinical review committee, or Institutional Review Board (IRB), in July 2006. The IRB clearance permitted us to finalize arrangements to begin patient screening and enrollment activities for the Phase 2 trial, and we began patient enrollment in September 2006 and completed enrollment of the 80 patients in June 2007. We announced positive preliminary efficacy results from our Phase 2 **Lymphoseek** trial in June 2007 and final results in December 2007. Localization of **Lymphoseek** to lymphoid tissue was confirmed by pathology in over 99% of the lymph node tissue samples removed during the Phase 2 trial. We held an end of Phase 2 meeting with FDA during late October 2007 during which the final results were reviewed. The Phase 2 study was conducted at five of the leading cancer centers in the U.S.: John Wayne Cancer Center; University of California, San Francisco; MD Anderson Cancer Center; University Hospital Cleveland (Case Western Reserve); and the University of Louisville.

Based on recent discussions and correspondence with FDA, we have proposed to FDA that we conduct two separate Phase 3 studies. During April 2008, we were cleared by FDA to begin patient enrollment in the first of the two studies. The first study is expected to involve approximately 200 evaluable patients with either melanoma or breast cancer. Patients in this trial will receive both **Lymphoseek** and a non-radiopharmaceutical agent (i.e., a vital blue dye) that is currently used as a marker in lymphatic mapping procedures. The endpoint of this trial is to show concordance of **Lymphoseek** to the vital blue dye of 94% or more. During the Phase 2 trial, we noted a concordance rate of approximately 97% in the 56 patients who received both **Lymphoseek** and the blue dye.

The second Phase 3 trial is proposed to involve approximately 150 evaluable patients with head and neck squamous cell carcinoma. The study is proposed to be conducted in patients undergoing full nodal dissection for the staging of head and neck squamous cell carcinoma and is intended to validate **Lymphoseek** as a sentinel node targeting agent for use in SLNB procedures. We believe such an indication would be greatly beneficial to the marketing and commercial adoption of **Lymphoseek**.

We plan to have a total of approximately 20 to 30 participating institutions in both Phase 3 trials and believe this will enable us to enroll patients at a more rapid rate than we experienced with the Phase 2 study. Our current goal is to complete enrollment in both Phase 3 clinical trials in 2008 to enable us to file the new drug application for **Lymphoseek** perhaps during the first half of 2009. However, this will be dependent upon our ability to commence and conclude the Phase 3 clinical studies in a timely fashion. Depending on the timing and outcome of the FDA regulatory review cycle, we believe that **Lymphoseek** can be commercialized in late 2009 or early 2010. In addition, Neoprobe has commenced discussing the drug approval and registration process through the centralized European drug evaluation procedures with



the European Medicinal Evaluation Agency (EMA) in London. We have requested a meeting to receive scientific advice from the EMA during June. We plan to involve European sites in the Phase 3 clinical trials and then to use the results from the Phase 3 clinical evaluations of **Lymphoseek** to support the drug registration application process with the EMA.

As a result of the modifications made to the development and regulatory pathway over **Lymphoseek**'s development cycle, we estimate total out-of-pocket development costs to bring **Lymphoseek** to market have increased to approximately \$9 to \$10 million, approximately \$5 million of which have been incurred through 2007. We cannot assure you, however, that this product will achieve regulatory approval, or if approved, that it will achieve market acceptance. See Risk Factors.

#### **RIGS**

From inception until 1998, Neoprobe devoted significant efforts and resources to the development of its proprietary **RIGS** technology. The **RIGS** system combines a patented hand-held gamma radiation detection probe, proprietary radiolabeled cancer-specific targeting agents, and patented surgical methods to provide surgeons with real-time information to locate tumor deposits not detectable by conventional methods. The **RIGS** system is designed to assist the surgeon in the more thorough removal of the cancer, thereby leading to improved surgical treatment of the patient. The targeting agents used in the **RIGS** process are monoclonal antibodies, labeled with a radioactive isotope that emits low energy gamma rays. The device used is a very sensitive radiation detection instrument that is capable of detecting small amounts of radiation bound to the targeting agent. Before surgery, a cancer patient is injected with one of the targeting agents which circulates throughout the patient's body and binds specifically to cancer cell antigens or receptors. Concentrations of the targeting agent are then located during surgery by Neoprobe's gamma detection device, which emits an audible tone to direct the surgeon to targeted tissue.

**RIGScan CR** is an intraoperative agent consisting of a radiolabeled murine monoclonal antibody (MAb CC49). The radiolabel used is  $^{125}\text{I}$ , a 27–35 KeV emitting isotope. The CC49 MAb was developed by the NCI and is licensed to Neoprobe by the National Institutes of Health (NIH). The CC49 MAb is produced from a murine cell line generated by the fusion of splenic lymphocytes from mice immunized with tumor-associated glycoprotein-72 (TAG-72) with non-immunoglobulin secreting P3-NS-1-Ag4 myeloma cells. The CC49 MAb localizes or binds to TAG-72 antigen and shows a strong reactivity with both LS-174T colon cancer extract and to a breast cancer extract.

**RIGScan CR** is the biologic component for the **RIGS** system to be used in patients with colon or rectal cancer. The **RIGS** system was conceived to be a diagnostic aid in the intraoperative detection of clinically occult disease.

**RIGScan CR** is intended to be used in conjunction with other diagnostic methods, for the detection of the extent and location of tumor in patients with colorectal cancer. The detection of clinically occult tumor provides the surgeon with a more accurate assessment of the extent of disease, and therefore may impact the surgical and therapeutic management of the patient. Clinical trials suggest that **RIGScan CR** provides additional information outside that provided by standard diagnostic modalities (including surgical exploration) that may aid in patient management. Specifically, **RIGScan CR** used as a component of the **RIGS** system confirms the location of surgically suspicious metastases, evaluates the margins of surgical resection, and detects occult tumor in perihepatic (portal and celiac axis) lymph nodes.

Neoprobe conducted two Phase 3 studies, NEO2-13 and NEO2-14, of **RIGScan CR** in the mid-1990s in patients with primary and metastatic colorectal cancer, respectively. Both studies were multi-institutional involving cancer treatment institutions in the United States, Israel, and Europe. The primary endpoint of both studies was to demonstrate that **RIGScan CR** detected pathology-confirmed disease that had not been detected by traditional preoperative (*i.e.*, CT Scans) or intraoperative (*i.e.*, surgeon's visual observations and palpation) means. That is, the trials were intended to show that the use of **RIGScan CR** assisted the surgeon in the detection of occult tumor. In 1996, Neoprobe submitted applications to the EMA and FDA for marketing approval of **RIGScan CR** for the detection of metastatic colorectal cancer.



Clinical study NEO2-14, which was submitted to FDA in the **RIGScan** CR Biologic License Application (BLA), enrolled 151 colorectal cancer patients with either suspected metastatic primary colorectal disease or recurrent colorectal disease. During FDA's review of the BLA, 109 of the enrolled patients were determined to be evaluable patients. Clinical study NEO2-13 was conducted in 287 enrolled patients with primary colorectal disease. The primary end-point for clinical study NEO2-13 was the identification of occult tumor.

NEO2-14 was the pivotal study submitted with Neoprobe's referenced BLA. Two additional studies evaluating patients with either primary or metastatic colorectal disease, NEO2-11 (a multi-center study) and NEO2-18 (a single institution study), were included in the BLA and provided supportive proof of concept (i.e., localization and occult tumor detection) and safety data. A study summary report for NEO2-13 was submitted under the BLA; however, FDA undertook no formal review of the study.

Following review of our applications, we received requests for further information from FDA and from the European Committee for Proprietary Medicinal Products on behalf of the EMEA. Both FDA and the EMEA acknowledged that our studies met the diagnostic endpoint of the Phase 3 clinical study, which was to provide incremental information to the surgeon regarding the location of hidden tumor. However, both agencies wanted to know how the finding of additional tumor provided clinical benefit that altered patient management or outcome for patients with metastatic colorectal cancer. In a series of conversations with FDA, the product claims were narrowed to the intraoperative detection of hepatic and perihepatic disease in patients with advanced colorectal cancer and patients with recurrent colorectal cancer.

FDA determined during its review of the BLA that the clinical studies of **RIGScan** CR needed to demonstrate clinical utility in addition to identifying additional pathology-confirmed disease. In discussions between Neoprobe and the agency, an FDA-driven post hoc analysis plan was developed to limit the evaluation of **RIGScan** CR to patients with hepatic and perihepatic disease with known metastasis to the liver. Findings of occult disease and subsequent changes in patient management (i.e., abandoning otherwise risky hepatic resections) in this limited population would serve as a measure of patient benefit. FDA's analysis of the patients enrolled in NEO2-14 matching the limited criteria was evaluated with a determination to confirm the surgical resection abandonment outcome. The number of evaluable patients in this redefined patient population was deemed too small by the agency and the lack of pre-stated protocol guidance precluded consistent sets of management changes given similar occult findings. The number of evaluable patients for any measure of clinical utility, therefore, was too small to meet relevant licensing requirements and FDA ultimately issued a not approvable letter for the BLA on December 22, 1997, describing certain clinical and manufacturing deficiencies. Neoprobe withdrew its application to the EMEA in November 1997.

We developed a clinical response plan for both agencies during the first half of 1998. However, following our analysis of the regulatory pathways for approval that existed at that time, we determined that we did not have sufficient financial resources to conduct the additional studies requested and sought to identify others with an interest in continuing the development process.

In recent years, we have obtained access to survival analyses of patients treated with **RIGScan** CR which have been prepared by third parties, indicating that **RIGScan** CR may be predictive of, or actually contribute to, a positive outcome when measuring survival of the patients that participated in our original BLA studies. The data or its possible significance was unknown at the time of the BLA review given the limited maturity of the follow-up experience. The data includes publication by some of the primary investigators involved in the Phase 3 **RIGS** trials who have independently conducted survival follow-up analyses to their own institution's **RIGS** trial patients with apparently favorable results relating to the long-term survival prognosis of patients who were treated with **RIGS**. In addition, we learned that FDA has held the BLA originally filed with FDA in 1996 open. Based primarily on these pieces of information, we requested a meeting with FDA to discuss the possible next steps for evaluating the survival related to our previous Phase 3 clinical trials as well as the possible submission of this data, if acceptable, as a prospective analysis in response to questions originally asked by FDA in response to our original BLA.

The April 2004 meeting with FDA was an important event in the re-activation of the **RIGS** program. The meeting was very helpful from a number of aspects: we confirmed that the **RIGS** BLA remains active and open. We believe this will improve both the cost effectiveness and timeliness of future regulatory submissions for **RIGScan** CR.

Additionally, FDA preliminarily confirmed that the BLA may be applicable to the general colorectal population; and not just the recurrent colorectal market as applied for in 1996. Applicability to a general colorectal population could result in a greater market potential for the product than if applicable to just the recurrent population. During the meeting, FDA also indicated that it would consider possible prognostic indications for **RIGScan** CR and that survival data from one of our earlier Phase 3 studies could be supportive of a prognostic indication.

It should be noted, however, that the **RIGScan** CR biologic drug has not been produced for several years and we believe it is likely we would have to perform some additional work related to ensuring the drug cell line is still viable and submit this data to FDA for their evaluation before approval could be considered. We have initiated discussions with established biologic manufacturing organizations to determine the costs and timelines associated with the production of commercial quantities of the CC49 antibody. In addition, we will need to establish radiolabeling capabilities for the CC49 antibody in order to meet the regulatory needs for the **RIGScan** CR product.

In parallel with our ongoing discussions with the regulatory authorities, we have discussed the clinical and regulatory strategy for **RIGScan** CR with reimbursement consultants who provided us with valuable input regarding the potential target pricing for a **RIGScan** product.

In November 2005, Neoprobe submitted a corporate IND application for the modified humanized version of **RIGScan** CR. With the establishment of the corporate IND, responsibility for the clinical and commercial development of the humanized version of **RIGScan** CR was officially transferred from a physician sponsored IND to Neoprobe. Prior to the evaluation of the modified antibody in a Phase 1 clinical trial, all clinical development of **RIGScan** CR had been conducted with a murine (i.e., mouse DNA-based) version of a monoclonal antibody. The Phase 1 trial was the first test in human patients using a modified version of the antibody from which the prominent parts of the mouse DNA chain had been removed. In early 2006, we filed an IND amendment that included a final report to FDA of the Phase 1 study.

Over the past few years, we have made progress in advancing our **RIGScan** CR development program while incurring little in the way of research expenses. Our **RIGS** 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. At present, we plan to submit a clinical development plan for **RIGScan** CR to the EMEA and to request a meeting to review the development plan and clinical protocol in the second quarter of 2008. The clinical protocol envisioned would involve approximately 400 patients in a randomized trial of patients with early-stage primary 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. However, 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. We have engaged in discussions with various parties regarding such a partnership. At the present time, while we have parties who have indicated an interest in entering into a development relationship, we do not believe these efforts will result in a partnership until further clarity can be added to the **RIGScan** regulatory approval pathway, such as obtaining a positive protocol determination from FDA or the EMEA. Earlier in 2008, we entered into discussions with investment bankers to help us gauge the interest of potential investment in the **RIGS** technology should FDA or the EMEA give us a positive determination on the protocol. Our intent in raising funds to support the **RIGS** technology would likely involve the contribution or assignment of the technology platform to a new entity through which the funds would be raised, so as not to dilute current Neoprobe shareholders. However, 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 the EMEA will clear our **RIGS** products for marketing or that any such products will be successfully introduced or achieve market acceptance. See Risk Factors.

#### *Activated Cellular Therapy*

Through various research collaborations, we performed early-stage research on another technology platform, ACT, based on work originally done in conjunction with the **RIGS** technology. ACT is intended to boost the patient's own immune system by removing lymph nodes identified during surgery and then, in a cell processing technique, activating and expanding helper T-cells found in the nodes. Within 10 to 14 days, the patient's own immune cells, activated and numbering more than 20 billion, are infused into the patient in an attempt to trigger a more effective immune response to the cancer.

In the course of our research into ACT performed with **RIGS**, we learned that these lymph node lymphocytes containing helper T-cells could be activated and expanded to treat patients afflicted with viral and autoimmune disease as well as oncology patients. We have seen promising efficacy of this technology demonstrated from six Phase 1 clinical trials covering the oncology, viral and autoimmune applications.

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.

In 2006, Cira Bio engaged the Battelle Memorial Institute to complete a technology and manufacturing process assessment of the cellular therapy approach. In addition, a scientific advisory group is being formed to develop a clinical and regulatory approach for the Cira Bio technology. Following the completion of these assessments and the formation of a commercialization strategy, Cira Bio intends to raise the necessary capital to move this technology platform forward. During the third quarter of 2007, Neoprobe entered into a Stock and Technology Option Agreement whereby Neoprobe gained the option to purchase the remaining 10% of Cira Bio for \$250,000 in the event that a successful financing was closed. The option expires on June 30, 2008. If exercised, Neoprobe would assume all technology rights held by Cira Bio's minority shareholders. In the first quarter of 2008, we entered into discussions with an investment banking firm to help us gauge the interest of potential investment in the ACT technology. However, we do not know if we will be successful in obtaining additional funding on terms acceptable to us, or at all. In addition, although the prospects for ACT may be improved depending on the success of activities we have undertaken to renew development efforts for **RIGS**, we currently do not intend to fund any significant ACT-related research and development beyond the evaluation work already performed until a source of further funding is identified. Our intent in raising funds to support the development of the ACT technology would likely be accomplished by an investment directly into Cira Bio, so that the funds raised would not dilute current Neoprobe shareholders. We cannot assure you that we will be successful in obtaining additional funding, or if obtained, that any ACT products will be successfully developed, tested or licensed, or that any such products will gain market acceptance. See Risk Factors.

## Market Overviews

The medical device marketplace is a fast growing market. *Medical Device & Diagnostic Industry* magazine reports an annual medical device and diagnostic market of \$75 billion in the U.S. and \$169 billion internationally.

### *Cancer Market Overview*

Cancer is the second leading cause of death in the U.S. and Western Europe and is expected to be responsible for over 560,000 deaths annually in 2008 in the U.S. alone. The NIH estimates the overall annual costs for cancer (the primary focus of our gamma detection and pharmaceutical products) for the U.S. in the year 2007 at \$219.2 billion:

\$89.0 billion for direct medical costs, \$18.2 billion for indirect morbidity, and \$112.0 billion for indirect mortality.

Our line of gamma detection systems is currently used primarily in the application of SLNB in breast cancer and melanoma which, according the ACS, are expected to account for 13% and 4%, respectively, of new cancer cases in the U.S. in 2008.

The NIH has estimated that breast cancer will annually affect half a million women in North America, Western Europe, and other major economic markets. Breast cancer is the second leading cause of death from cancer among all women in the U.S. The incidence of breast cancer, while starting to show minor declines in the past year or so, generally increases with age, rising from about 100 cases per 100,000 women at age 40 to about 400 cases per 100,000 women at age 65. While the incidence rate for breast cancer appears to be decreasing, the overall number of new cases of breast cancer is still increasing. According to the ACS, over 182,000 new cases of invasive breast cancer are expected to be diagnosed and approximately 41,000 women are expected to die from the disease during 2008 in the U.S. alone. Thus, we believe that the significant aging of the population, combined with improved education and awareness of breast cancer and diagnostic methods, will continue to lead to an increased number of breast cancer surgical diagnostic procedures. Approximately 80% of the patients diagnosed with breast cancer undergo a lymph node dissection (either ALND or SLNB) to determine if the disease has spread. While many breast cancer patients are treated in large cancer centers or university hospitals, regional and/or community hospitals continue to treat the majority of breast cancer patients. Over 10,000 hospitals are located in the markets targeted for our gamma detection SLNB products. We believe a significant portion of the potential market for gamma detection devices remains unpenetrated and that a replacement market is beginning to develop as units placed in the early years of SLNB begin to exceed over ten years of use. In addition, if the potential of **Lymphoseek** as a radioactive tracing agent is ultimately realized, it has the potential to address not only the current breast and melanoma markets on a procedural basis, but also to assist in the clinical evaluation and staging of solid tumor cancers and expanding SLNB to additional indications, such as gastric, non-small cell lung and other solid tumor cancers.

We estimate the total market potential for **Lymphoseek**, if ultimately approved for all of these indications, could exceed \$230 million. However, we cannot assure you that **Lymphoseek** will be cleared to market, or if cleared to market, that it will achieve the prices or sales we have estimated.

The ACS estimates that nearly 148,000 new incidences of colon and rectal cancers will occur in the U.S. in 2008. Based on an assumed recurrence rate of 40%, this would translate into total potential surgical procedures of over 200,000 annually in the U.S. alone. We believe the number of procedures in other markets of the world to be approximately two times the estimated U.S. market. As a result, we believe the total potential global market for **RIGScan** CR could be in excess of \$2 billion annually, depending on the level of reimbursement allowed. However, we cannot assure you that **RIGScan** CR will be cleared to market, or if cleared to market, that it will receive the reimbursement or achieve the level of sales we have currently estimated.

### *Blood Flow Measurement Market Overview*

Cardiovascular disease is the number one killer of men and women in the U.S. and in a majority of countries in the rest of the world that track such statistics. The National Center for Healthcare Services (NCHS) registered nearly 7 million inpatient cardiovascular procedures in the U.S. during 2005 with a

primary diagnosis of cardiovascular disease. In the U.S. in 2005, the NCHS estimates that there were 469,000 coronary artery bypass surgeries performed on 261,000 patients. We, as well as our competitors and other industry analysts, generally estimate the rest of the world's incidence of such modalities at approximately equal to as much as two times U.S. estimates.

The American Heart Association (AHA) estimates the total cost of cardiovascular diseases and stroke in the United States will exceed \$448 billion in 2008. A substantial portion of these expenditures is expected to be for non-invasive image and intravascular examination.

Based on data obtained from the AHA, the Society of Thoracic Surgeons and the American Hospital Association, it is estimated that there are approximately 500,000 vascular and cardiovascular procedures performed in the U.S. that could benefit from qualitative blood flow measurement. Based on these estimates, information obtained from industry sources and data published by our competitors and other medical device companies, we estimate the worldwide total of target procedures to be approximately equal to as much as two times the U.S. totals.

Industry analysts have estimated the potential market for blood flow measurement devices will exceed \$240 million annually by 2010. However, at the present state of market development and acceptance of blood flow measurement within the medical community, the penetrable market is likely significantly less. At present, we would estimate that less than 25% of by-pass procedures involve blood flow measurement. We believe that gaining a modest share of the potential penetrable market could result in meaningful supplemental annual revenues for our company. We cannot assure you, however, that Cardiosonix products will achieve market acceptance and generate the level of sales or prices anticipated.

### **Marketing and Distribution**

#### *Gamma Detection Devices*

We began marketing the current generation of our gamma detection systems, the **neo2000**, in October 1998. Since October of 1999, our gamma detection systems have been marketed and distributed throughout most of the world through Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company. In Japan, however, we market our products through a pre-existing relationship with Century Medical, Inc.

The heart of the **neo2000** system is a control unit that is software-upgradeable, permitting product enhancements without costly remanufacturing. Since the original launch of the **neo2000** system, we have introduced an enhanced version of our 14mm reusable probe optimized for lymphatic mapping procedures, a laparoscopic probe intended for certain minimally invasive procedures, and two wireless probes. We have also developed four major software version upgrades for the system that have been made available for sale to customers. We intend to continue developing additional SLNB-related probes and instrument products in cooperation with EES to maintain our leadership position in the SLNB field.

Physician training is critical to the use and adoption of SLNB products by surgeons and other medical professionals. Our company and our marketing partners have established relationships with leaders in the SLNB surgical community and have established and supported training courses internationally for lymphatic mapping. We intend to continue to work with our partners to expand the number of SLNB training courses available to surgeons.

We entered into a distribution agreement with EES effective October 1, 1999 for an initial five-year term with options to extend for two successive two-year terms. In March 2004, EES exercised its first two-year extension option, and in March 2006 EES exercised its option for the second and final two-year term extension, thus extending the term of our current agreement through the end of 2008. In December 2007, Neoprobe and EES executed an amendment to the distribution agreement which extended the agreement through the end of 2013. Under this agreement, we manufacture and sell our SLNB products almost exclusively to EES, who distributes the products globally (except for Japan). EES has no ongoing purchase or reimbursement commitments to us other than the rolling four-month binding purchase commitment for gamma detection devices as outlined in the distribution agreement. However, under the amended terms, EES will be required to meet certain annual minimum sales levels in order to maintain

their exclusivity in distribution in most global markets. In addition, the economic terms of the revenue sharing from the end customer sale of our gamma detection devices will increase commencing in January 2009. Our agreement with EES also contains certain termination provisions and licenses to our intellectual property that take effect only in the event we fail to supply product, or for other reasons such as a change of control. See Risk Factors.

*Gamma Detection Radiopharmaceuticals*

During the fourth quarter of 2007, we executed an agreement with Cardinal Health for the exclusive distribution of **Lymphoseek** in the United States. The agreement is for a term of five years from the date of marketing clearance of a NDA from FDA. Under the terms of our agreement with Cardinal Health, Neoprobe will receive a share of each patient dose sold. In addition, Neoprobe will receive up to \$3 million in payments upon the achievement of certain sales milestones by Cardinal Health. We do not currently have collaborative agreements covering **Lymphoseek** in other areas of the world or for **RIGScan CR** or **ACT**. We cannot assure you that we will be successful in securing collaborative partners for other global markets or radiopharmaceutical products, or that we will be able to negotiate acceptable terms for such arrangements. We believe the most preferable and likely distribution partners for **Lymphoseek** would be entities with established radiopharmaceutical distribution channels, although it is possible that other entities with more traditional oncology pharmaceutical portfolios may also have interest.

With respect to **RIGScan CR**, we believe there are development milestones that can be achieved prior to the need for significant capital investment in **RIGScan CR** such as preparing the request for a SPA and completing a final protocol review. However, 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 to fund the pivotal clinical testing that will be necessary to gain marketing clearance for **RIGScan CR**. At the present time, while we have parties who have indicated an interest in entering into a development relationship, we do not believe these efforts will result in a definitive partnership at least until a regulatory and development pathway is obtained. We anticipate continuing discussions for **RIGScan CR** as we move forward with the clinical development of the product; however, we cannot assure you that we will be able to secure marketing and distribution partners for the product, or if secured, that such arrangements will result in significant sales of **RIGScan CR**.

*Blood Flow Measurement Devices*

Our initial blood flow measurement device, the **Quantix/OR** has received marketing clearance in the U.S. and the EU and certain other foreign markets. Our goal is to ensure sales and distribution coverage through third parties of substantially all of the U.S., the EU, the Pacific Rim of Asia and selective markets in the rest of the world. Currently, we have in place or have executed or reached agreement in principle with distributors and/or master distributors for the **Quantix/OR** covering the United States, all major market countries in the EU, and substantially all countries that comprise the Pacific Rim of Asia. In addition, we have distribution arrangements in place covering major portions of Central and South America.

Our time and effort in the marketing and sales of blood flow devices through 2007 has been to work to close on leads generated regarding the **Quantix/OR** and to develop new sales leads. The sales cycle for medical devices such as our blood flow products is typically a four- to six-month cycle. Sales leads and closures in the cardiovascular market, particularly in the U.S., continue to disappoint us. As a result, we intend to modify our current distribution relationships and are investigating alternative distribution channels for the **Quantix** devices. We continue to evaluate our outlook for our blood flow measurement business and believe the outcome of our work in the dialysis/vascular assessment arena is critical in demonstrating the ultimate viability of this product line.

## **Manufacturing**

### *Gamma Detection Devices*

We rely on independent contract manufacturers, some of which are single-source suppliers, for the manufacture of the principal components of our current line of gamma detection system products. See Risk Factors. We have devoted significant resources to develop production capability for our gamma detection systems at qualified contract manufacturers. Production of the **neo2000** control unit, the 14mm probe, the 11mm laparoscopic probe, and the wireless probes involve the manufacture of components by a combination of subcontractors, including but not limited to eV Products, a division of II-VI Corporation (eV), and TriVirix International, Inc. (TriVirix). We also purchase certain accessories for our line of gamma detection systems from other qualified manufacturers.

In December 1997, we entered into a supply agreement with eV for the supply of certain crystals and associated electronics to be used in the manufacture of our proprietary line of hand-held gamma detection probes. The original term of the agreement with eV expired on December 31, 2002 and was automatically extended through December 31, 2005. Since the expiration of the agreement eV, has continued to supply crystals under purchase orders. eV supplies 100% of the crystals used in our products. While eV is not the only potential supplier of such crystals, any prolonged interruption of this source could restrict the availability of our probe products, which would adversely affect our operating results.

In February 2004, we executed a Product Supply Agreement with TriVirix for the manufacture of the **neo2000**, 14mm probe and 11mm laparoscopic probe. The term of this agreement expired in February 2008 but was automatically extended through February 2009. The Agreement is automatically extended for successive one-year periods unless six months notice is provided by either party.

We cannot assure you that we will be able to maintain agreements with our subcontractors on terms acceptable to us, or that our subcontractors will be able to meet our production requirements on a timely basis, at the required levels of performance and quality. In the event that any of our subcontractors is unable or unwilling to meet our production requirements, we cannot assure you that an alternate source of supply could be established without significant interruption in product supply or without significant adverse impact to product availability or cost. Any significant supply interruption or yield problems that we or our subcontractors experience would have a material adverse effect on our ability to manufacture our products and, therefore, a material adverse effect on our business, financial condition, and results of operations until a new source of supply is qualified. See Risk Factors.

### *Gamma Detection Radiopharmaceuticals*

In preparation for the commencement of a multi-center clinical evaluation of **Lymphoseek**, Neoprobe engaged drug manufacturing organizations to produce the drug that was used in the Phase 2 trial and is expected to be used in the pivotal (i.e., Phase 3) clinical trials. Reliable has produced the active chemical compound and Catalent Pharma Solutions (Catalent), formerly Cardinal Health Pharmaceutical Technology and Services, has performed final product manufacturing including final drug formulation, lyophilization (i.e., freeze-drying) and packaging processes. Once packaged, the vial drug can then be shipped to a hospital or regional commercial radiopharmacy where it can be made radioactive (i.e., radiolabeled) with Tc99m to become **Lymphoseek**. The commercial manufacturing processes at Reliable and Catalent have been validated and both organizations have assisted Neoprobe in the preparation of the chemistry, manufacturing and control sections of our submissions to FDA. Both Reliable and Catalent are registered manufacturers with FDA. At this point, drug product produced by Reliable and Catalent has been produced under clinical development agreements. Commercial supply and distribution agreements are being negotiated with both Reliable and Catalent. We cannot assure you that we will be successful in reaching such agreements with Reliable or Catalent on terms satisfactory to us or at all.



In preparation for the initiation of the next phase of clinical evaluation of **RIGScan CR**, we have also initiated discussions with potential biologic manufacturers and radiolabeling organizations. We have held discussions with parties who may assist in the manufacturing validation and radiolabeling of the **RIGScan CR** product; however, we have not yet finalized agreements with these entities. We anticipate finalizing these discussions following securing a development partner in order to accommodate the commencement of future **RIGScan CR** clinical trials. We cannot assure you that we will be successful in securing and/or maintaining the necessary biologic, product and/or radiolabeling capabilities. See Risk Factors.

#### *Blood Flow Measurement Devices*

The **Quantix** blood flow measurement devices distributed through early 2006 were manufactured by our subsidiary, CardioSonix Ltd. In early 2006, we received approval from the Office of the Chief Scientist in Israel to transfer manufacturing rights for the **Quantix** devices to Neoprobe. See Risk Factors. Future assembly of **Quantix** blood flow control units will therefore be done under the terms of the Product Supply Agreement we have in place with TriVirix for the assembly of our gamma devices. Assembly of the **Quantix/OR** control units started at TriVirix in March 2006. We currently purchase ultrasound transducer modules and probe subassemblies from Vermon S.A. (Vermon) of France under purchase orders. The ultrasound probe assemblies are then completed by Technical Services for Electronics, Inc. (TSE), also under purchase orders.

We cannot assure you that we will finalize supply and service agreements with Vermon, TSE or other subcontractors for the **Quantix** products, that we will be able to maintain our agreement with TriVirix, or that our subcontractors will be able to meet our production requirements on a timely basis, at the required levels of performance and quality. In the event that any of our subcontractors is unable or unwilling to meet our production requirements, we cannot assure you that an alternate source of supply could be established without significant interruption in product supply or without significant adverse impact to product availability or cost. Any significant supply interruption or yield problems that we or our subcontractors experience would have a material adverse effect on our ability to manufacture our products and, therefore, a material adverse effect on our business, financial condition, and results of operations until a new source of supply is qualified. See Risk Factors.

#### **Competition**

We face competition from medical product and biotechnology companies, as well as from universities and other non-profit research organizations in the field of cancer diagnostics and treatment. Many emerging medical product companies have corporate partnership arrangements with large, established companies to support the research, development, and commercialization of products that may be competitive with our products. In addition, a number of large established companies are developing proprietary technologies or have enhanced their capabilities by entering into arrangements with or acquiring companies with technologies applicable to the detection or treatment of cancer and the measurement of blood flow. Many of our existing or potential competitors have substantially greater financial, research and development, regulatory, marketing, and production resources than we have. Other companies may develop and introduce products and processes competitive with or superior to those of ours. See Risk Factors.

For our products, an important factor in competition is the timing of market introduction of our products or those of our competitors' products. Accordingly, the relative speed with which we can develop products, complete the regulatory clearance processes and supply commercial quantities of the products to the market is an important competitive factor. We expect that competition among products cleared for marketing will be based on, among other things, product efficacy, safety, reliability, availability, price, and patent position.

#### *Gamma Detection Devices*

With the emergence of ILM, a number of companies have begun to market gamma radiation detection instruments. Most of the competitive products have been designed from an industrial or nuclear medicine perspective rather than being developed initially for surgical use. We compete with products produced and/or marketed by Care Wise Medical Products Corporation, Intra-Medical Imaging LLC, RMD Instruments LLC, SenoRx, Pol.Hi.Tech. Srl, and other companies.

It is often difficult to glean accurate competitive information within the lymphatic mapping field, primarily because most of our competitors are either subsidiaries or divisions of large corporations or privately held corporations, whose sales revenue or volume data is not readily available or determinable. In addition, lymphatic mapping does not currently have a separate reimbursement code in most healthcare systems. As such, determining trends in the actual number of procedures being performed using lymphatic mapping is difficult. We believe, based on our understanding of EES success rate in competitive bid situations, that our market share has remained relatively constant or increased slightly in light of changes in the competitive landscape over the past few years. As we have discussed, we believe that current sales levels indicate that some prospective customers may be waiting on the results of important international clinical trials prior to adoption the SLNB procedure and purchasing a gamma detection device. We expect the results from these trials, when announced, will likely have a positive impact on sales volumes. We believe our intellectual property portfolio will be a barrier to competitive products; however, we cannot assure you that competitive products will not be developed, be successful in eroding our market share or affect the prices we receive for our gamma detection devices. See Risk Factors.

#### *Gamma Detection Radiopharmaceuticals*

We do not believe there are any directly competitive intraoperative diagnostic radiopharmaceuticals with **RIGScan CR** that would be used intraoperatively in the colorectal cancer application that **RIGScan CR** is initially targeted for. There are other radiopharmaceuticals that are used as preoperative imaging agents; however, we are unaware of any that could be used as a real-time diagnostic aid during surgery such as **RIGScan CR**.

Surgeons who practice the lymphatic mapping procedure that **Lymphoseek** is intended for currently use other radiopharmaceuticals such as a sulphur-colloid compound in the U.S. and other colloidal compounds in other markets. However, these drugs are being used off-label in most major global markets (i.e., they are not specifically indicated for use as a lymphatic targeting agent). As such, we believe that **Lymphoseek**, if ultimately approved, would be the first drug specifically labeled for use as a sentinel lymph node targeting agent.

#### *Blood Flow Measurement Devices*

There are several technologies on the market that measure or claim to measure indices of blood flow. These products can be categorized as devices that measure blood flow directly and devices that only obtain an estimation of flow conditions. We believe our device is most directly competitive in the cardiac bypass graft (CABG) marketplace with Transit Time Ultrasound (TT) Flowmetry. TT is the leading modality for blood flow measurement in the operating room today. TT systems monitor blood flow invasively and are restricted to isolated vessels. They require probe adaptation to the vessel size, and do not provide additional vascular parameters. The technology requires the operator to encircle the blood vessel with a probe that includes two ultrasound transmitters/receivers on one side, and a mirror reflector on the opposite side of the vessel. By measuring the transit time of the ultrasound beam in the upstream and downstream directions, volume blood flow estimates can be evaluated. In addition, there are other competitive technologies in CABG applications which utilize Doppler ultrasound. Doppler technology has been around for several decades, and is being widely used in non-invasive vascular diagnostics. Duplex ultrasound systems have the potential to measure blood flow non-invasively. Duplex systems are designed for imaging the anatomical severity of pathology. This method is technician-dependent, often cumbersome and does not offer monitoring capabilities. Plain Doppler systems provide only blood flow velocity rather than volume flow.

Cardiosonix products are designed to address blood flow measurement across a variety of clinical and surgical settings, and there are a number of companies already in the marketplace that offer products related to blood flow measurement. However, most of these products do not directly compete with Cardiosonix products. The companies that do offer potentially competitive products are, for the most part, smaller, privately held companies, with which we believe we can effectively compete. Indeed, due to our belief in the technical superiority of our products, we believe the existence of competitors will help to educate the marketplace regarding the importance of blood flow measurement. As we have discussed, adoption of blood flow monitoring devices for the measurement of hemodynamic status will likely take an involved education process as it often involves a change in clinical or surgical management. While there is not a clear leader in blood flow measurement in the broader vascular assessment market, the following companies compete most directly with the Quantix products in the CABG market: Transonic Systems, Inc., Medi-Stim AS, and Carolina Medical, Inc.

We face competition from medical product and biotechnology companies, as well as from universities and other non-profit research organizations in the field of cancer diagnostics and treatment. Many emerging medical product companies have corporate partnership arrangements with large, established companies to support the research, development, and commercialization of products that may be competitive with our products. In addition, a number of large established companies are developing proprietary technologies or have enhanced their capabilities by entering into arrangements with or acquiring companies with technologies applicable to the detection or treatment of cancer and the measurement of blood flow. Many of our existing or potential competitors have substantially greater financial, research and development, regulatory, marketing, and production resources than we have. Other companies may develop and introduce products and processes competitive with or superior to those of ours. See Risk Factors. For our products, an important factor in competition is the timing of market introduction of our products or those of our competitors' products. Accordingly, the relative speed with which we can develop products, complete the regulatory clearance processes and supply commercial quantities of the products to the market is an important competitive factor. We expect that competition among products cleared for marketing will be based on, among other things, product efficacy, safety, reliability, availability, price, and patent position.

#### **Patents and Proprietary Rights**

We regard the establishment of a strong intellectual property position in our technology as an integral part of the development process. We attempt to protect our proprietary technologies through patents and intellectual property positions in the United States as well as major foreign markets. Approximately 20 instrument patents issued in the United States as well as major foreign markets protect our gamma detection technology.

Cardiosonix has also applied for patent coverage for the key elements of its Doppler blood flow technology in the U.S. The first of the two patents covering Cardiosonix technology was issued in the U.S. in January 2003 and claims for the second patent have been allowed.

**Lymphoseek** is also the subject of patents and patent applications in the United States and certain major foreign markets. The patents and patent applications are held by The Regents of the University of California and have been licensed exclusively to Neoprobe for lymphatic tissue imaging and intraoperative detection. The first composition of matter patent covering **Lymphoseek** was issued in the United States in June 2002. The claims of the composition of matter patent covering **Lymphoseek** have been allowed in the EU and issued in the majority of EU countries in 2005. The composition of matter patent is being prosecuted in Japan and we have received notice of the allowance of the underlying claims.

We continue to maintain proprietary protection for the products related to **RIGS** and **ACT** in major global markets such as the U.S. and the EU, which although not currently integral to our near-term business plans, may be important to a potential **RIGS** or **ACT** development partner. The original methodology aspects of our **RIGS** technology are claimed in the United States in U.S. Patent No. 4,782,840, which expired in August 2005. However, Neoprobe has recently gained access to additional methodology

applications related to our **RIGS** technology that are covered by patents that provide additional patent coverage through 2018, unless extended. In addition to the **RIGS** methodology patents, composition of matter patents have been issued in the U.S. and EU that cover the antibodies used in clinical studies. The most recent of these patents was issued in 2004 and additional patent applications are pending.

The activated cellular therapy technology of Cira Bio is the subject of issued patents in the United States to which Neoprobe has exclusive license rights. European patent statutes do not permit patent coverage for treatment technologies such as Cira Bio's. The oncology applications of Cira Bio's treatment approach are covered by issued patents with expiration dates of 2018 and 2020, unless extended. The autoimmune applications are covered by an issued patent with an expiration date of 2018, unless extended. The viral applications are the subject of patent applications and other aspects of the Cira Bio technology that are in the process of being reviewed by the United States Patent and Trademark Office. Cira Bio has received favorable office action correspondence on both applications.

The patent position of biotechnology and medical device firms, including our company, generally is highly uncertain and may involve complex legal and factual questions. Potential competitors may have filed applications, or may have been issued patents, or may obtain additional patents and proprietary rights relating to products or processes in the same area of technology as that used by our company. The scope and validity of these patents and applications, the extent to which we may be required to obtain licenses thereunder or under other proprietary rights, and the cost and availability of licenses are uncertain. We cannot assure you that our patent applications will result in additional patents being issued or that any of our patents will afford protection against competitors with similar technology; nor can we assure you that any of our patents will not be designed around by others or that others will not obtain patents that we would need to license or design around.

We also rely upon unpatented trade secrets. We cannot assure you that others will not independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to our trade secrets, or disclose such technology, or that we can meaningfully protect our rights to our unpatented trade secrets.

We require our employees, consultants, advisers, and suppliers to execute a confidentiality agreement upon the commencement of an employment, consulting or manufacturing relationship with us. The agreement provides that all confidential information developed by or made known to the individual during the course of the relationship will be kept confidential and not disclosed to third parties except in specified circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual will be the exclusive property of our company. We cannot assure you, however, that these agreements will provide meaningful protection for our trade secrets in the event of an unauthorized use or disclosure of such information. See Risk Factors.

### **Government Regulation**

Most aspects of our business are subject to some degree of government regulation in the countries in which we conduct our operations. As a developer, manufacturer and marketer of medical products, we are subject to extensive regulation by, among other governmental entities, FDA and the corresponding state, local and foreign regulatory bodies in jurisdictions in which our products are sold. These regulations govern the introduction of new products, the observance of certain standards with respect to the manufacture, safety, efficacy and labeling of such products, the maintenance of certain records, the tracking of such products and other matters.

Failure to comply with applicable federal, state, local or foreign laws or regulations could subject us to enforcement action, including product seizures, recalls, withdrawal of marketing clearances, and civil and criminal penalties, any one or more of which could have a material adverse effect on our business. We believe that we are in substantial compliance with such governmental regulations. However, federal, state, local and foreign laws and regulations regarding the manufacture and sale of medical devices are subject to future changes. We cannot assure you that such changes will not have a material adverse effect on our company.

For some products, and in some countries, government regulation is significant and, in general, there is a trend toward more stringent regulation. In recent years, FDA and certain foreign regulatory bodies have pursued a more rigorous enforcement program to ensure that regulated businesses like ours comply with applicable laws and regulations. We devote significant time, effort and expense addressing the extensive governmental regulatory requirements applicable to our business. To date, we have not received any notifications or warning letters from FDA or any other regulatory bodies of alleged deficiencies in our compliance with the relevant requirements, nor have we recalled or issued safety alerts on any of our products. However, we cannot assure you that a warning letter, recall or safety alert, if it occurred, would not have a material adverse effect on our company.

In the early- to mid-1990s, the review time by FDA to clear medical products for commercial release lengthened and the number of marketing clearances decreased. In response to public and congressional concern, FDA Modernization Act of 1997 (the 1997 Act) was adopted with the intent of bringing better definition to the clearance process for new medical products. While FDA review times have improved since passage of the 1997 Act, we cannot assure you that FDA review process will not continue to delay our company's introduction of new products in the U.S. in the future. In addition, many foreign countries have adopted more stringent regulatory requirements that also have added to the delays and uncertainties associated with the release of new products, as well as the clinical and regulatory costs of supporting such releases. It is possible that delays in receipt of, or failure to receive, any necessary clearance for our new product offerings could have a material adverse effect on our business, financial condition or results of operations.

While we are unable to predict the extent to which our business may be affected by future regulatory developments, we believe that our substantial experience dealing with governmental regulatory requirements and restrictions on our operations throughout the world, and our development of new and improved products, should enable us to compete effectively within this environment.

#### *Gamma Detection and Blood Flow Measurement Devices*

As a manufacturer of medical devices sold in various global markets, we are required to manufacture the devices under quality system regulations (QSR) and maintain appropriate technical files and quality records. Our medical devices are regulated in the United States by FDA and in the EU according to the Medical Device Directive (93/42/EEC). Under this regulation, we must obtain CE Mark status for all products exported to the EU.

Our initial generation gamma detection instruments received 510(k) marketing clearance from FDA in December 1986 with modified versions receiving similar clearances in 1992 through 1997. In 1998, FDA reclassified nuclear uptake detectors as being exempt from the 510(k) process. We believe the **neo2000** device is exempt from the 510(k) process because it is substantially equivalent to previously cleared predecessor devices. We obtained the CE Mark for the **neo2000** device in January 1999, and therefore, must continue to manufacture the devices under a quality system compliant to the requirements of ISO 9001/EN 46001 and maintain appropriate technical files. We maintain a license to import our gamma detection devices into Canada, and therefore must continue to manufacture the devices under a quality system compliant to the requirements of ISO 13485 and relevant Canadian regulations.

Cardiosonix has received 510(k) and CE mark clearance to market the **Quantix/OR** device in the U.S. and EU. Our distribution partners in certain foreign markets other than the EU are seeking marketing clearances, as required, for the **Quantix/OR**.

#### *Gamma Detection Radiopharmaceuticals (Lymphoseek and RIGScan)*

Our radiolabeled targeting agents and biologic products, if developed, would require a regulatory license to market by FDA and by comparable agencies in foreign countries. The process of obtaining regulatory licenses and approvals is costly and time consuming, and we have encountered significant impediments and delays related to our previously proposed biologic products.

The process of completing pre-clinical and clinical testing, manufacturing validation and submission of a marketing application to the appropriate regulatory bodies usually takes a number of years and requires the expenditure of substantial resources, and we cannot assure you that any approval will be granted on a timely basis, if at all. Additionally, the length of time it takes for the various regulatory bodies to evaluate an application for marketing approval varies considerably, as does the amount of preclinical and clinical data required to demonstrate the safety and efficacy of a specific product. The regulatory bodies may require additional clinical studies that may take several years to perform. The length of the review period may vary widely depending upon the nature and indications of the proposed product and whether the regulatory body has any further questions or requests any additional data. Also, the regulatory bodies will likely require post-marketing reporting and surveillance programs to monitor the side effects of the products. We cannot assure you that any of our potential drug or biologic products will be approved by the regulatory bodies or approved on a timely or accelerated basis, or that any approvals received will not subsequently be revoked or modified.

In addition to regulations enforced by FDA, the manufacture, distribution, and use of radioactive targeting agents, if developed, are also subject to regulation by the Nuclear Regulatory Commission (NRC), the Department of Transportation and other federal, state, and local government authorities. We, or our manufacturer of the radiolabeled antibodies, must obtain a specific license from the NRC to manufacture and distribute radiolabeled antibodies, as well as comply with all applicable regulations. We must also comply with Department of Transportation regulations on the labeling and packaging requirements for shipment of radiolabeled antibodies to licensed clinics, and must comply with federal, state, and local governmental laws regarding the disposal of radioactive waste. We cannot assure you that we will be able to obtain all necessary licenses and permits and be able to comply with all applicable laws. The failure to obtain such licenses and permits or to comply with applicable laws would have a materially adverse effect on our business, financial condition, and results of operations.

#### **Research and Development**

We spent \$2.9 million and \$3.8 million on research and development activities in the fiscal years ended December 31, 2007 and 2006, respectively.

#### **Employees**

As of April 30, 2008, we had 21 full-time employees. We consider our relations with our employees to be good.

#### **DESCRIPTION OF PROPERTY**

We currently lease approximately 11,300 square feet of office space at 425 Metro Place North, Dublin, Ohio, as our principal offices. The current lease term is from June 1, 2007 and ending on January 31, 2013, at a monthly base rent of approximately \$8,000 during 2008. We must also pay a pro-rata portion of the operating expenses and real estate taxes of the building. We believe these facilities are in good condition, but that we may need to expand our leased space related to our radiopharmaceutical activities depending on the level of activities performed internally versus by third parties.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion should be read together with our Financial Statements and the Notes related to those statements, as well as the other financial information included in this Registration Statement on Form S-1, of which this prospectus is a part. Some of our discussion is forward-looking and involves risks and uncertainties. For information regarding risk factors that could have a material adverse effect on our business, refer to the Risk Factors section of this prospectus beginning on page 4.*

### **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> gamma detection systems and the **Quantix**<sup>®</sup> line of blood flow measurement devices of our subsidiary, Cardiosonix. In addition to our medical device products, we have two radiopharmaceutical products, **Lymphoseek** and **RIGScan**<sup>®</sup> CR, in 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).

### **Executive Summary**

This Executive Summary 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 gamma device product line and on our ability to successfully commercialize the blood flow products of our subsidiary, Cardiosonix. We cannot assure you, however, 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 continue to be optimistic about the longer-term potential for our other proprietary, procedural-based technologies such as **Lymphoseek** and **RIGS**<sup>®</sup> (radioimmunoguided surgery); however, these technologies are not anticipated to generate any significant revenue for us during 2008. In addition, we cannot assure you that these products will ever obtain marketing clearance from the appropriate regulatory bodies.

We believe that the future prospects for Neoprobe continue to improve as we make progress in all of our lines of business. We expect revenue from our gamma device line to continue to provide a strong revenue base during 2008. Sales of our blood flow measurement devices continue to fall short of our expectations. While we have seen only limited success in selling our blood flow devices into the cardiovascular arena but believe some recent improvements in the device may provide an entrée into dialysis/vascular assessment applications. As a result, we expect that blood flow-related revenue for 2008 to increase above 2007 levels. Over the past few years, we have also made progress on our oncology drug development initiatives. We recently completed patient enrollment in a Phase 2 clinical trial for **Lymphoseek** in breast cancer and melanoma.

The majority of our development expenses over the next 12 to 18 months will be devoted to **Lymphoseek** and our efforts to complete Phase 3 clinical trials and to prepare for the submission of a new drug application (NDA) to the U.S. Food and Drug Administration (FDA). We currently expect to submit the NDA in the first half of 2009 subject to receiving clearance from FDA to commence the Phase 3 studies in a timely fashion. Through 2007, we have spent approximately \$5 million in out-of-pocket costs related to the development of **Lymphoseek**. We anticipate the total outsourced out-of-pocket costs required to reach the point of commercialization for **Lymphoseek** to be approximately \$9 to \$10 million. We also expect to incur development expenses in 2008 as we move forward with our marketing partner, Ethicon Endo-Surgery, Inc. (EES) to continue to expand and innovate our device product lines through line extensions in our gamma detection probes. The amount of device development expenses will vary following final agreement on development projects by EES. EES may contribute to the cost of developing the new products. We are currently devoting some of our internal engineering efforts to modify the **Quantix/OR**<sup>™</sup> to better meet the needs of the dialysis/vascular assessment market but we expect to be able to do so with minimal external resources. As a result of the minimal incremental funding necessary to support our blood flow measurement business beyond that needed to support our gamma device line,

we believe we are operating at close to breakeven for our device lines based on our current expectations. We will continue to monitor the state of market development and success for our blood flow measurement business and adjust our business plans accordingly. We may also incur some minor development expenses in 2008 related to our **RIGS** radiopharmaceutical product development although we intend to defer any major expenses until we identify a funding source or a partner to assist us in the development and commercialization of **RIGScan CR**. We expect to show a loss for fiscal year 2008 primarily due to our drug product development efforts.

As of December 31, 2007 our cash on hand totaled \$1.5 million. During the first quarter of 2008, we closed on the second tranche of investment from Montaur for \$3.0 million. We believe our currently available capital resources and committed sources of financing will be adequate to sustain our operations at planned levels for the foreseeable future. The financing agreement with Montaur gives us access to an additional \$3.0 million beyond the \$10.0 million already accessed. If we decide to seek additional funding from other sources to support the development of our products and additional financing is not available when required or is not available on acceptable terms, or we are unable to arrange a suitable strategic opportunity, we may need to modify our business plan. We cannot assure you that the additional capital we require will be available on acceptable terms, if at all. We cannot assure you that we will be able to successfully commercialize products or that we will achieve significant product revenues from our current or potential new products. In addition, we cannot assure you that we will achieve or sustain profitability in the future.

*Our Outlook for our Gamma Detection Device Products*

We believe our core gamma detection device business line will continue to achieve positive results. Our belief is based on continued interest in the research community in lymphatic mapping. Although numerous studies have examined the correlation between the sentinel node and the remaining axillary nodes, two large randomized multi-center trials ended about three years ago that will compare the long-term results of sentinel lymph node removal with full axillary node dissection. While both of these trials are now closed, we expect data from these studies will likely be presented sometime in 2009. We expect the results from these clinical trials, when announced, will have a positive impact on helping us to penetrate the remaining market for breast cancer and melanoma. We also believe that the surgical community will continue to adopt the SLNB application while a standard of care determination is still pending. We also believe that **Lymphoseek**, our lymphatic targeting agent, should it become commercially available, could significantly improve the adoption of sentinel lymph node biopsy (SLNB) in future years in areas beyond melanoma and breast cancer. To that end, we are supporting the clinical evaluation of **Lymphoseek** in human patients a planned Phase 3 trial in head and neck squamous cell carcinoma and in ongoing Phase 1 trials in patients with either prostate or colon cancers.

We believe that most of the leading cancer treatment institutions in the U.S. and other major global markets have adopted SLNB and purchased gamma detection systems such as the **neo2000**. As a result, we may be reaching saturation within this segment of the market, except for a replacement sales market which we also believe is developing as devices introduced during the early years of lymphatic mapping begin to age over ten years. A decline in the adoption rate of SLNB or the development of alternative technologies by competitors may negatively impact our sales volumes, and therefore, revenues and net income in future years. In order to address the issue of potential saturation as well as to continue to provide our customers with the highest quality tools for performing SLNB, we introduced a new wireless handheld gamma detection probe at the American College of Surgeons 92<sup>nd</sup> Annual Clinical Congress meeting in Chicago in October 2006. The new probe uses Bluetooth<sup>®</sup> wireless technology to communicate gamma radiation counts to our **neo2000** control unit. The wireless probe eliminates cumbersome cables that can complicate the surgical field and provides the surgeon with operative field flexibility. The new probe is compatible with all existing models of our **neo2000** system and is available with either a straight or angled detection tip.

During March 2006, our primary gamma device marketing partner, Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company, exercised the second of its two options to extend the termination date of our distribution agreement with them through the end of 2008. In December 2007, Neoprobe and EES executed an amendment to the distribution agreement which extended the agreement through the end of 2013. The amendment modified certain terms of the agreement including increasing the percentage of





EES sales which Neoprobe receives by 15-20% and setting minimum performance requirements in order to maintain exclusivity. As consideration for extending the distribution agreement through the end of 2013, EES paid us \$500,000 in December 2007, representing a non-refundable license fee and reimbursement of past research and development expenses. We believe that total quantities of **neo2000** control units expected to be purchased by EES during 2008 should be consistent with 2006 and 2007 purchase levels. We cannot assure you, however, that EES product purchases beyond those firmly committed through mid-2008 will indeed occur or that the prices we realize will not be affected by increased competition.

Under the terms of our distribution agreement with EES, the transfer prices we receive on product sales to EES are based on a fixed percentage of their end-customer sales price, subject to a floor transfer price. Throughout their sales history, our products have generally commanded a price premium in most of the markets in which they are sold, which we believe is due to their superior performance and ease of use. The average end-customer sales prices received by EES for our base gamma detection systems declined less than 1% in 2007 as compared to 2006. While we continue to believe in the technical and user-friendly superiority of our products, the competitive landscape continues to evolve and we may lose market share or experience price erosion as a result. A loss of market share or significant price erosion would have a direct negative impact on net income. If price erosion occurs to a greater extent 2008, or if the U.S. Dollar gains significantly against the Euro, there is a risk associated with future sales prices of our gamma detection devices to EES that may erode some or all of the premium we received in prior years in excess of the floor price. We anticipate generating a net profit from the sale of our gamma detection devices in 2008, excluding the allocation of any corporate general and administrative costs. We also believe the anticipated volumes will result in continued profitability for our gamma device business line for 2008, even at floor prices. However, we cannot assure you that sales will occur at the expected levels or prices or that such sales will ultimately result in profitability of the product line.

#### *Our Outlook for our Drugs and Therapeutics*

The primary focus of our drug and therapeutic development efforts during 2007 centered on completing the Phase 2 clinical trial for **Lymphoseek** for patients with breast cancer or melanoma and in preparation for the initiation of Phase 3 clinical trials of **Lymphoseek** in similar patient populations. **Lymphoseek** is intended to be used in surgical procedures for the detection of cancer cells in lymph nodes in a variety of tumor types including breast, melanoma, prostate, gastric and colon cancers. If approved, **Lymphoseek** would be the first radiopharmaceutical specifically designed to target lymphatic tissue that may be predictive of the spread of cancer into the lymphatic system. We held an end of Phase 2 and pre-Phase 3 meeting with FDA in the fourth quarter of 2007 and we completed responses to questions raised by FDA regarding our clinical and drug development program for **Lymphoseek**. All of our responses to the questions and the final report for the Phase 2 study were filed with FDA in January of 2008. After completion of the responses, we filed with the agency our final version of the first of two pivotal studies to be conducted to support the registration of **Lymphoseek** as a sentinel lymph node targeting agent. During April 2008, we were cleared by FDA to begin patient enrollment in the first of the two studies. The first Phase 3 study will be conducted in approximately 200 patients with either breast cancer or melanoma. The trial design is similar to the successfully conducted Phase 2 study, except that we will be monitoring the concordance of **Lymphoseek** uptake in lymph nodes with the uptake of a vital blue dye in the same lymph nodes. In addition, we have provided FDA with the outline of a second Phase 3 study to be conducted in patients with head and neck squamous cell carcinoma. This second Phase 3 study is designed to validate **Lymphoseek** as a sentinel lymph node targeting agent. We currently project that the first of the Phase 3 trials will commence during the second quarter of 2008. We plan to have approximately 20 to 30 participating institutions in the trials, which should enable us to enroll patients at a more rapid rate than we experienced with the Phase 2 study. Our discussions with FDA have also suggested that the Phase 3 trials will support a specific intended use of **Lymphoseek** in SLNB procedures. We believe such an indication would be beneficial to the marketing and commercial adoption of **Lymphoseek**. Our goal is to file the new drug application for **Lymphoseek** in the first half of 2009, which will be dependent upon our ability to commence and successfully conclude the Phase 3 clinical studies in a timely fashion. Depending on the timing and outcome of the FDA regulatory review cycle, we believe that **Lymphoseek** can be commercialized in late 2009 or early 2010.



In early 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 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 licenses to several pending patent applications covering oncology and viral disease applications of the ACT technology.

Cira Bio intends to raise the necessary capital to move this technology platform forward; however, Cira Bio has not yet identified a potential source of capital. In August 2007 we entered into an option agreement whereby Neoprobe can purchase the remaining 10% interest in Cira Bio from Cira LLC for \$250,000 in connection with the successful completion of a financing transaction by Cira Bio. The option agreement expires June 30, 2008. In the first quarter of 2008, we entered into discussions with an investment banking firm to help us gauge the interest of potential investment in the ACT technology. Our intent in raising funds to support the development of the ACT technology 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 the option agreement expires and 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.

#### *Our Outlook for our Blood Flow Measurement Products*

We currently are actively marketing a blood flow measurement device, the **Quantix/OR**, that has regulatory clearance to market in the U.S. and European Union (EU) as well as certain other foreign markets. The **Quantix/OR** is primarily intended to measure blood flow in cardiac bypass graft and other similar procedures. Currently, we have in place or have executed or reached agreement in principle with distributors and/or master distributors for the **Quantix/OR** covering the United States, all major market countries in the EU, and substantially all countries that comprise the Pacific Rim of Asia. In addition, we have distribution arrangements in place covering major portions of Central and South America. Sales leads and closures in the cardiovascular market, particularly in the U.S., continue to disappoint us. As a result, we intend to modify our current distribution relationships and are investigating alternative distribution channels for the **Quantix** devices.

The commercialization efforts for our blood flow measurement devices continue to be a challenge. While the **Quantix** system employs an innovative measurement approach, the clinical setting of the cardiovascular procedure presented certain clinical challenges. However, several development and evaluation activities that were initiated in 2007 provide some basis for cautious optimism. During 2007, we completed some minor measurement algorithm modifications and began evaluating the technology in vascular assessments with very encouraging results. The vascular applications address a growing problem with dialysis patients. We are assessing the commercial opportunity that may be available with the vascular access business.

We are continuing to evaluate our outlook for our blood flow measurement business and believe the outcome of our work in the dialysis / vascular assessment arena is critical in demonstrating the ultimate viability of this product line. The sales cycle for medical devices such as our blood flow products is typically a four- to six-month cycle. This sales cycle, coupled with the timetable necessary to train the new distributors we engaged during 2006 has resulted in disappointing sales levels of our blood flow measurement equipment to date. We anticipate that the product development and market support costs we will incur in 2008 will be greater than the revenue we generate from the sales of blood flow devices. As a result, we expect to show a loss for our blood flow measurement device product line for 2008 due to ongoing development and marketing support that is required to expand market acceptance for the product line. We are currently devoting minimal incremental resources and funding to support our blood



flow measurement business and believe we are not far from a breakeven point for the blood flow line based on the incremental investment anticipated in our current expectations. We will continue to monitor the state of market development and success for our blood flow measurement business and adjust our business plans accordingly.

#### *Summary*

The strength of our oncology product (device and drug) portfolio should position us to eventually achieve profitable operating performance for our device product lines. However, overall profitable operational results will be significantly affected by our decision to fund drug and therapeutic development activities internally.

We anticipate generating a net profit from the sale of our gamma detection devices in 2008, excluding the allocation of any corporate general and administrative costs; however, we expect to show a loss for our blood flow measurement device product line for 2008 due to ongoing research and development and increased marketing and administrative support costs that may be required to expand market acceptance for the product line. Our overall operating results for 2008 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 2008. In addition, our net loss and loss per share will likely be significantly impacted by the non-cash interest expense we expect to record related to the accounting treatment for the derivative liabilities related to the convertible debt we issued in December 2007. 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 2007 increased to \$7.1 million from \$6.1 million in the prior year. The increase was primarily due to sales of our wireless probes which were initially launched in December 2006, offset by decreases in unit sales and pricing of our base gamma detection systems. In addition, sales of **Quantix** products in 2007 decreased by \$253,000 compared to 2006.

Gross margins for 2007 decreased to 55% as compared to 57% in 2006. The decrease in gross margins on net product sales was primarily due to a combination of factors including lower margins on sales of demonstration units during 2007 as EES outfitted its entire U.S. sales force with both the angled and straight versions of the wireless probes, higher than expected production costs on our initial production runs of wireless probes, increased estimated warranty costs following the commercial launch of the wireless probe products which we consider normal for a new product, and a 1% price decline on base gamma detection systems sold by EES. Gross margins in 2007 and 2006 were also adversely affected by inventory impairments of \$105,000 and \$125,000, respectively, related to our **Quantix** products. Results for 2007 also reflect a decrease in research and development expenditures of \$938,000 to \$2.9 million from \$3.8 million in 2006. The decrease was primarily due to lower **Lymphoseek** development expenses resulting from the reduction in preclinical testing and drug development costs offset by the costs associated with our Phase 2 clinical trials. Research and development costs were further reduced by savings related to curtailing our activities associated with the blood flow measurement and decreasing activities related to gamma detection device lines after launching the wireless probes. Consolidated selling, general and administrative expenses decreased to \$2.8 million in 2007 from \$3.1 million in 2006.

*Net Sales and Margins.* Net sales, comprised primarily of our gamma detection systems, increased \$1.1 million, or 18%, to \$7.1 million in 2007 from \$6.1 million in 2006. Gross margins on net sales decreased to 55% of net sales for 2007 compared to 57% of net sales for 2006.

The increase in net sales was the result of increased gamma detection device sales of \$1.3 million and increased gamma detection device extended service contract revenue of \$68,000, offset by decreases of \$253,000 in blood flow measurement device sales and \$9,000 in gamma detection device service-related

revenue. Revenue from our new wireless probes more than offset declines in unit sales and pricing on our control units and corded probes. The price at which we sell our gamma detection products to EES is based on a percentage of the global average selling price received by EES on sales of Neoprobe products to end customers, subject to a minimum floor price. The base system price at which we sold **neo2000** systems to EES decreased approximately 1% during 2007 compared to 2006.

The decrease in gross margins on net product sales was primarily due to a combination of factors including lower margins on sales of wireless probe demonstration units during 2007, higher than expected production costs on our initial production runs of wireless probes, increased estimated warranty costs following the commercial launch of our new wireless probe products, and a minor price decline on control units and corded probes sold by EES. Gross margins in 2007 and 2006 were also adversely affected by inventory impairments of \$105,000 and \$125,000, respectively, related to our **Quantix** products.

*Research and Development Expenses.* Research and development expenses decreased \$938,000 or 25% to \$2.9 million during 2007 from \$3.8 million in 2006. Research and development expenses in 2007 included approximately \$1.8 million in drug and therapy product development costs, \$680,000 in gamma detection device development costs and \$359,000 in product design activities for the **Quantix** products. This compares to expenses of \$2.1 million, \$952,000 and \$708,000 in these segment categories during 2006. The changes in each category were primarily due to (i) lower costs related to the Phase 2 **Lymphoseek** clinical activities in 2007 than the non-clinical expenses and trial preparation costs incurred in 2006, (ii) decreased product development activities related to our wireless gamma detection probes, and (iii) decreased product refinement activities related to the **Quantix/OR**, respectively.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses decreased \$239,000 or 8% to \$2.8 million during 2007 from \$3.1 million in 2006. The net difference was due primarily to decreases in marketing, facilities expenses, insurance, and other personnel-related expenses that were partially offset by increases in compensation and professional services.

*Other Income (Expenses).* Other expenses, net increased \$2.0 million to \$3.3 million during 2007 from \$1.3 million in 2006. Interest expense related to the convertible debt agreements we completed in December 2004, July 2007 and December 2007 increased \$788,000 to \$2.3 million during 2007 from \$1.5 million in 2006. Of this interest expense, \$1.4 million and \$809,000 in 2007 and 2006, respectively, was non-cash in nature related to the amortization of debt issuance costs and discounts resulting from the warrants and beneficial conversion features of the convertible debt. The increase in non-cash interest was primarily due to the impact of the acceleration of principal repayments on the effective interest method of calculating the discount amortization which the company adjusted during the third quarter of 2007. During the fourth quarter of 2007, we also recorded debt extinguishment charges of \$860,000 related to modification of the terms of a convertible debt agreement with our CEO. In addition, we recorded a \$248,000 increase in derivative liabilities resulting from the accounting treatment for the convertible note agreement we executed in December 2007 and the related warrants to purchase our common stock, which contained certain provisions that resulted in their being treated as derivative instruments. We recorded a decrease of \$154,000 in interest income related to lower balances of cash and investments during 2007 compared to 2006.

### **Liquidity and Capital Resources**

Cash balances decreased to \$1.5 million at December 31, 2007 from \$2.5 million at December 31, 2006. The net decrease primarily resulted from cash used to repay and service our outstanding debt, and to fund our operations, mainly for research and development activities, but was substantially offset by proceeds from new convertible notes and the issuance of common stock during 2007. The current ratio increased to 2.1:1 at December 31, 2007 from 1.6:1 at December 31, 2006. The increase in the current ratio was primarily due to the replacement of convertible debt instruments which had significant payments due within the next year by convertible debt with a longer term.

*Operating Activities.* Cash used in operations decreased \$2.3 million to \$1.3 million during 2007 compared to \$3.6 million in 2006.

Accounts receivable increased to \$1.6 million at December 31, 2007 from \$1.2 million at December 31, 2006. The increase was primarily a result of normal fluctuations in timing of purchases and payments by EES, including a pronounced increase in sales of extended warranty contracts during the fourth quarter of 2007 and better than expected pricing related to our wireless probe as compared to the provisional price, offset by credits related to wireless probes sold to EES as demonstration units. We expect overall receivable levels will continue to fluctuate during 2008 depending on the timing of purchases and payments by EES.

Inventory levels remained steady at \$1.2 million at December 31, 2007 and 2006. Gamma detection device materials decreased and work-in-process inventories decreased as we completed and sold the initial production runs of wireless probes, while finished device inventories increased due to normal fluctuations in timing of production runs and sales to EES. Blood flow measurement device materials and finished device inventories increased in anticipation of increased activity in the vascular assessment market. Drug materials decreased and work-in-process inventories increased as we completed the second commercial production run of **Lymphoseek**. We expect overall inventory levels to remain relatively steady during 2008.

*Investing Activities.* Investing activities used \$48,000 during 2007 versus \$1.4 million provided during 2006. We received \$1.5 million from maturities of available-for-sale securities during 2006. Capital expenditures during 2007 and 2006 were primarily for production tools and equipment and software. We expect our overall capital expenditures for 2008 will be approximately the same as 2007.

*Financing Activities.* Cash provided by financing activities increased to \$351,000 during 2007 from \$240,000 used in 2006. Proceeds from the issuance of common stock were \$1.9 million during 2007. Proceeds from the issuance of new notes payable were \$8.0 million during the same period. Payments of notes payable were \$8.3 million and \$235,000 during 2007 and 2006, respectively. Payments of debt issuance costs were \$565,000 during 2007. Payments for the repurchase of warrants related to debt extinguished in 2007 totaled \$675,000.

In December 2004, we completed a private placement of four-year convertible promissory notes in an aggregate principal amount of \$8.1 million under a Securities Purchase Agreement with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and David C. Bupp, our President and CEO. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC (collectively, the Great Point Funds). The notes originally bore interest at 8% per annum and were due on December 13, 2008. As part of the original transaction, we issued the investors 10,125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, expiring in December 2009. In connection with this financing, we also issued 1,600,000 Series U warrants to purchase our common stock to the placement agents, containing substantially the same terms as the warrants issued to the investors.

In November 2006, we amended the Securities Purchase Agreements with the Great Point Funds and Mr. Bupp and modified several of the key terms in the related notes. The modified notes bore interest at 12% per annum, payable quarterly. The maturity of the notes was modified as follows: \$500,000 due January 8, 2007; \$1,250,000 due July 9, 2007; \$1,750,000 due January 7, 2008; \$2,000,000 due July 7, 2008 and the remaining \$2,600,000 due January 7, 2009. We were also required to make mandatory repayments of principal to the Great Point Funds under certain circumstances such as asset dispositions, partnering transactions and sales of equity. During 2007, we made \$625,000 of such mandatory repayments that were applied against future scheduled principal payments. In exchange for the increased interest rate and accelerated principal repayment schedule, the note holders eliminated the financial covenants under the original notes and eliminated certain conversion price adjustments from the original notes related to sales of equity securities by Neoprobe. In addition, Neoprobe was allowed to make optional prepayments to the Great Point Funds by giving them 10 business days notice during which time the note holders could decide to convert the notes into our common stock. The new notes remained freely convertible into shares of our common stock at a price of \$0.40 per share. We could force conversion of the notes prior to their stated maturity under certain circumstances. The convertible



promissory note issued to Mr. Bupp in connection with this transaction had an outstanding principal amount of \$0 on December 31, 2007 as a result of being refinanced on December 26, 2007. We made interest payments due under the note to Mr. Bupp totaling \$11,868 during the fiscal year ended December 31, 2007.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion). We authorized up to 12,000,000 shares of our common stock for sale to Fusion under the agreement. Under the terms of the agreement, in December 2006, we issued 720,000 shares of our common stock as an initial commitment fee. We are also required to issue to Fusion up to an additional 720,000 shares of our common stock as an additional commitment fee in connection with future purchases made by Fusion. The additional 720,000 shares will be issued pro rata as we sell our common stock to Fusion under the agreement, resulting in a total commitment fee of 1,440,000 shares of our common stock if the entire \$6.0 million in value of stock is sold. The price of shares sold to Fusion will generally be based on market prices for purchases that are not subject to the floor price of \$0.20 per share. We filed a registration statement covering sales to Fusion and shares issued as additional commitment fees under the agreement, which became effective on December 28, 2006. During 2008 to date, we have sold no shares to Fusion and have issued them no common stock as commitment fees. During 2007, we sold a total of 7,360,338 shares of our common stock under the agreement, realized gross proceeds of \$1.9 million from such sales, and issued 228,000 shares of our common stock to Fusion as additional commitment fees related to such sales. During 2006, we sold a total of 208,333 shares of our common stock under the agreement, realized gross proceeds of \$50,000 from such sales, and issued 6,000 shares of our common stock to Fusion as additional commitment fees related to such sales. All of such sales and issuances were made pursuant to the registration statement.

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 investors 500,000 Series V warrants to purchase our common stock at an exercise price of \$0.31 per share, expiring in July 2012. The convertible promissory note issued to the Bupp Investors in connection with this transaction had an outstanding principal amount of \$1.0 million on December 31, 2007, and an outstanding principal amount of \$1.0 million as of March 14, 2008.

On December 26, 2007, we entered into a Securities Purchase Agreement 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 (Common Stock), at an exercise price of \$0.32 per share. On April 16, 2008, following receipt by the Company of clearance by FDA to commence a Phase 3 clinical trial for Lymphoseek in patients with breast cancer or melanoma, we amended the Securities Purchase Agreement 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 Common Stock at the conversion price of \$0.36 per share. Additionally, pursuant to the terms of the SPA, as amended, and subject to certain contingencies described therein, after the Company has obtained 135 vital blue dye lymph nodes from patients who have completed surgery and the injection of the drug in the Phase 3 clinical trial of Lymphoseek in patients with breast cancer or melanoma, we will issue to 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 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, also for an aggregate purchase price of \$3,000,000.

The Series A Note bears interest at a rate per annum equal to 10%, and it is partially convertible at the option of Montaur into Common Stock at a price of \$0.26 per share. The Series B Note also bears interest at a rate per annum equal to 10%, and is convertible into shares of 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 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 the daily volume weighted average price of our Common Stock on the OTC Bulletin Board (or national securities exchange, if applicable) as reported by Bloomberg Financial L.P. for the five (5) days upon which our Common Stock is traded on the OTC Bulletin Board immediately preceding the date of the interest payment. Pursuant to the provisions of the Certificate of Designations, Voting Powers, Preferences, Limitations, Restrictions, and Relative Rights of Series A 8% Cumulative Convertible Preferred Stock, Montaur may convert all or any portion of the shares of Preferred Stock into a number of shares of Common Stock equal to the quotient of: (1) the Liquidation Preference Amount of the shares of Preferred Stock by (2) the Conversion Price then in effect for the Preferred Stock. Per the Certificate of Designations, the Liquidation Preference Amount is equal to \$1,000 per share of Preferred Stock, and the Conversion Price is equal to the lesser of \$0.50 and the closing price of the Common Stock on the issuance date of the Preferred Stock, subject to adjustment as described in the Certificate of Designations.

In connection with the Montaur Purchase Agreement, 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 500,000 Series V warrants to purchase our common stock at an exercise price of \$0.32 per share, expiring in December 2012.

We applied \$5,725,000 from the proceeds of our issuance of the Series A Note and Series W warrants to the complete repayment of our outstanding obligations under the Replacement Series A Convertible Promissory Notes issued to the Great Point Funds and David C. Bupp as of November 30, 2006, pursuant to the Securities Purchase Agreement, dated as of December 13, 2004, by and among Neoprobe, the Great Point Funds and Mr. Bupp, as amended by the Amendment dated as of November 30, 2006 (the Amended GPP Purchase Agreement). We applied an additional \$675,000 from the proceeds of our issuance of the Series A Note and Series W warrants to the redemption of 10,000,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to the Great Point Funds pursuant to the Amended GPP Purchase Agreement. In connection with the consummation of the Montaur Purchase Agreement and amendment of the Bupp Purchase Agreement, Mr. Bupp agreed to the cancellation of 125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to Mr. Bupp pursuant to the Amended GPP Purchase Agreement without additional consideration to Mr. Bupp other than discussed above.

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 commence Phase 3 clinical trials for **Lymphoseek**. We believe our currently available capital resources will be adequate to sustain our operations at planned levels for the foreseeable future. The financing agreement with Montaur gives us access to an additional \$3.0 million. In addition, we may raise additional funds through our stock purchase agreement with Fusion to supplement our capital needs until we are able to generate positive cash flow from **Lymphoseek**. However, the extent to which we rely on Fusion 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

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secure working capital from other sources. Specifically, Fusion 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. Further, under the terms of the Montaur financing, we are prohibited from accessing the Fusion line until certain conditions are satisfied. Through December 31, 2007, we were successful in raising some capital through our common stock purchase agreement with Fusion. However, we cannot assure you that we will be successful in raising additional capital through Fusion or any other sources at terms acceptable to the Company, or at all. We cannot assure you that we will be able to successfully commercialize products or that we will achieve significant product revenues from our current or potential new products. In addition, we cannot assure you 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). 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 defers 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 do not expect the adoption of SFAS No. 157 to have a material impact on our consolidated results of operations or financial condition.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an Amendment of FASB Statement No. 115* (SFAS No. 159). SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value at specified election dates. Most of the provisions of SFAS No. 159 apply only to entities that elect the fair value option. However, the amendment to FASB Statement No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, applies to all entities with available-for-sale and trading securities. The fair value option established by SFAS No. 159 permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. The fair value option may be applied instrument by instrument, with a few exceptions, such as investments otherwise accounted for by the equity method, is irrevocable (unless a new election date occurs), and is applied only to entire instruments and not to portions of instruments. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. Early adoption was permitted as of the beginning of a fiscal year that began on or before November 15, 2007, provided the entity also elected to apply the provisions of SFAS No. 157, *Fair Value Measurements*. We plan to adopt SFAS No. 159 as required on January 1, 2008; however, we do not plan to elect to measure any of our currently outstanding financial instruments using the fair value option outlined in SFAS No. 159. As such, we do not expect the adoption of SFAS No. 159 to have a material impact on our consolidated results of operations or financial condition.

In June 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force (EITF) on Issue 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities* (EITF 07-3). The scope of EITF 07-3 is focused on the accounting for non-refundable advance payments for goods that will be used or services that will be performed in future research and development activities. The FASB concluded that these types of payments should be deferred and capitalized until the goods have been delivered or the related services have been rendered. EITF 07-3 is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. We do not expect EITF 07-3 to have a material effect on our consolidated results of operations or financial condition.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* (SFAS No. 141(R)). 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 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 is required to be 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 after we adopt SFAS No. 141(R), 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). 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 is required to be adopted by Neoprobe beginning January 1, 2009. Earlier adoption is prohibited. SFAS No. 160 shall be applied prospectively as of the beginning of the fiscal year in which it is adopted, except for the presentation and disclosure requirements. The presentation and disclosure requirements shall be applied retrospectively for all periods presented. We do not expect the adoption of SFAS No. 160 to have a material effect on our consolidated results of operations or financial condition.

In December 2007, the FASB ratified the consensus reached by the EITF on EITF Issue 07-1, *Accounting for Collaborative Arrangements*. EITF 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. EITF 07-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years and should be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. We do not expect EITF 07-1 to 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). SFAS No. 161 amends and expands the disclosure requirements of Statement 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. SFAS No. 161 is effective for fiscal years beginning after November 15, 2008. We are currently evaluating the impact that the adoption of SFAS No. 161 will have 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. 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 U.S. generally accepted accounting principles 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.* Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment*, which is a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 123(R) supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees*, and amends SFAS No. 95, *Statement of Cash Flows*. 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. In adopting SFAS No. 123(R), we made no modifications to outstanding stock options, nor did we have any other outstanding share-based payment instruments subject to SFAS No. 123(R) at the time of our adoption. We will continue to evaluate compensation trends and may further revise our option granting practices in future years.

*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, 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 December 31, 2007, the most significant long-lived assets on our balance sheet relate to assets recorded in connection with the

acquisition of Cardiosonix and gamma detection device patents related to ILM. The recoverability of these assets is based on the financial projections and models related to the future sales success of Cardiosonix products and the continuing success of our gamma detection product line. As such, these assets could be subject to significant adjustment should the Cardiosonix technology not be successfully commercialized or the sales amounts in our current projections not be 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 Liabilities.* We account for derivatives 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, and for hedging activities. Derivative instruments embedded in contracts, to the extent not already a free-standing contract, are required to be bifurcated from the debt instrument and accounted for separately. All derivatives are recorded on the consolidated balance sheet at fair value. In accordance with SFAS No. 133, the conversion option and two put options embedded in the Series A Note issued in December 2007 are considered derivative instruments and are required to be bifurcated from the debt instrument 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 warrants issued in connection with the Series A Note are 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 note. The fair value of the Series W warrants was determined using the Black-Scholes option pricing model. Changes in the fair value of the derivative liabilities are recorded in the consolidated statement of operations. As of December 31, 2007, the derivative liabilities had a fair value of \$1.60 million and \$1.25 million for the conversion and put options and the warrants, respectively. Because the value of our stock increased \$0.02 per share from \$0.27 per share at the closing date of the financing on December 26, 2007 to \$0.29 per share at December 31, 2007, our year end, the effect of marking the derivative liabilities to market at December 31, 2007 resulted in an increase in the estimated fair value of the warrant liability of \$248,000 which was recorded as non-cash expense during the fourth quarter of 2007.

#### **Other Items Affecting Financial Condition**

At December 31, 2007, we had deferred tax assets in the U.S. related to net operating tax loss carryforwards and tax credit carryforwards of approximately \$35.2 million and \$4.9 million, respectively, available to offset or reduce future income tax liability, if any, through 2027. However, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, use of prior tax loss and credit carryforwards may be limited after an ownership change. As a result of ownership changes as defined by Sections 382 and 383, which have occurred at various points in our history, we believe utilization of our tax loss carryforwards and tax credit carryforwards may be significantly limited and are therefore fully reserved in our financial statements.



## OUR MANAGEMENT

### Directors, Executive Officers, Promoters and Control Persons

#### *Directors*

#### **Directors whose terms continue until the 2008 Annual Meeting:**

**Carl J. Aschinger, Jr.**, age 69, has served as a director of our company since June 2004 and as Chairman of the Board since July 2007. Mr. Aschinger is the Chairman of CSC Worldwide (formerly Columbus Show Case Co.), a privately-held company that manufactures showcases for the retail industry. Mr. Aschinger also serves on the Board of Directors and as Chairman of the Audit Committee of Pinnacle Data Systems, a publicly-traded company that provides software and hardware solutions to original equipment manufacturers. Mr. Aschinger is a former director of Liqui-Box Corporation and Huntington National Bank as well as other privately-held ventures and has served on boards or advisory committees of several not-for-profit organizations.

**Owen E. Johnson, M.D.**, age 67, has served as a director of our company since July 2007. Prior to his retirement in December 2006, Dr. Johnson served as Vice President and Senior Medical Director of United HealthCare of Ohio, Inc. (UHC), a subsidiary of UnitedHealth Group, where he was involved in a number of roles and activities including new technology assessment and reimbursement establishment. During 2007, Dr. Johnson rejoined United Health Networks, a subsidiary of United Health Group, as Medical Director for their cardiac line of service. Dr. Johnson has also served on the Board and on numerous Committees of UHC as well as other related organizations. Prior to joining UHC, Dr. Johnson held several hospital appointments with Riverside Methodist Hospital in Columbus, Ohio. Dr. Johnson has also been active in numerous professional, fraternal and community organizations in the Columbus, Ohio area.

**Fred B. Miller**, age 69, has served as a director of our company since January 2002. Mr. Miller serves as Chairman of the Audit Committee. Mr. Miller is the President and Chief Operating Officer of Seicon, Limited, a privately held company that specializes in developing, applying and licensing technology to reduce seismic and mechanically induced vibration. Mr. Miller also serves on the board of one other privately-held company. Until his retirement in 1995, Mr. Miller had been with Price Waterhouse LLP since 1962. Mr. Miller is a Certified Public Accountant, a member of the American Institute of Certified Public Accountants (AICPA), a past member of the Council of the AICPA and a member and past president of the Ohio Society of Certified Public Accountants. He also has served on the boards or advisory committees of several universities and not-for-profit organizations. Mr. Miller has a B.S. degree in Accounting from The Ohio State University.

#### **Directors whose terms continue until the 2009 Annual Meeting:**

**Kirby I. Bland, M.D.**, age 66, has served as a director of our company since May 2004. Dr. Bland currently serves as Professor and Chairman and Fay Fletcher Kerner Professor and Chairman, Department of Surgery of the University of Alabama at Birmingham (UAB) School of Medicine since 1999 and 2002, respectively, Deputy Director of the UAB Comprehensive Cancer Center since 2000 and Senior Scientist, Division of Human Gene Therapy, UAB School of Medicine since 2001. Prior to his appointments at UAB, Dr. Bland was J. Murry Breadsley Professor and Chairman, Professor of Medical Science, Department of Surgery and Director, Brown University Integrated Program in Surgery at Brown University School of Medicine from 1993 to 1999. Prior to his appointments at Brown University, Dr. Bland was Professor and Associate Chairman, Department of Surgery, University of Florida College of Medicine from 1983 to 1993 and Associate Director of Clinical Research at the University of Florida Cancer Center from 1991 to 1993. Dr. Bland held a number of medical staff positions at the University of Louisville, School of Medicine from 1977 to 1983 and at M. D. Anderson Hospital and Tumor Institute from 1976 to 1977. Dr. Bland is a member of the Board of Governors of the American College of Surgeons (ACS), a member of the ACS Advisory Committee, Oncology Group (ACOSOG), a member of the ACS American Joint Committee on Cancer Task Force and serves as Chairman of the ACS Breast Disease Site Committee, COC. Dr. Bland is a past President of the Society of Surgical Oncology. Dr. Bland received his B.S. in Chemistry/Biology from Auburn University and a M.D. degree from the University of Alabama, Medical College of Alabama.

**J. Frank Whitley, Jr.**, age 66, has served as a director of our company since May 1994. Mr. Whitley was Director of Mergers, Acquisitions and Licensing at The Dow Chemical Company (Dow), a multinational chemical company, from June 1993 until his retirement in June 1997. After joining Dow in 1965, Mr. Whitley served in a variety of marketing, financial, and business management functions. Mr. Whitley has a B.S. degree in Mathematics from Lamar State College of Technology.

**Directors whose terms continue until the 2010 Annual Meeting:**

**Reuven Avital**, age 56, has served as a director of our company since January 2002. Mr. Avital is a partner and general manager of Ma Aragim Enterprises Ltd., an investment company in Israel, and he is a board member of a number of privately-held Israeli companies, two of them in the medical device field. Mr. Avital was a board member of Cardiosonix, Ltd. from April 2001 through December 31, 2001, when we acquired the company. Previously, Mr. Avital served in the Israeli government in a variety of middle and senior management positions. He is also chairman or a board member of several not-for-profit organizations, mainly involved in education for the under-privileged and international peace-building. Mr. Avital has B.A. degrees in The History of the Middle East and International Relations from the Hebrew University of Jerusalem, and a M.P.A. from the Kennedy School of Government at Harvard University.

**David C. Bupp**, age 58, has served as President and a director of our company since August 1992 and as Chief Executive Officer since February 1998. From August 1992 to May 1993, Mr. Bupp served as our Treasurer. In addition to the foregoing positions, from December 1991 to August 1992, he was Acting President, Executive Vice President, Chief Operating Officer and Treasurer, and from December 1989 to December 1991, he was Vice President, Finance and Chief Financial Officer. From 1982 to December 1989, Mr. Bupp was Senior Vice President, Regional Manager for AmeriTrust Company National Association, a nationally chartered bank holding company, where he was in charge of commercial and retail banking operations throughout Central Ohio. Mr. Bupp has a B.A. degree in Economics from Ohio Wesleyan University. Mr. Bupp also completed a course of study at Stonier Graduate School of Banking at Rutgers University.

**Executive Officers**

In addition to Mr. Bupp, the following individuals are executive officers of our Company and serve in the position(s) indicated below:

| <b>Name</b>      | <b>Age</b> | <b>Position</b>   |
|------------------|------------|---|
| Anthony K. Blair | 47         | Vice President, Manufacturing Operations                                  |
| Rodger A. Brown  | 57         | Vice President, Regulatory Affairs and Quality Assurance                  |
| Brent L. Larson  | 45         | Vice President, Finance; Chief Financial Officer; Treasurer and Secretary |
| Douglas L. Rash  | 64         | Vice President, Marketing   |

**Anthony K. Blair** has served as Vice President, Manufacturing Operations of our Company since July 2004. Prior to joining our Company, he served as Vice President, Manufacturing Operations of Enpath Medical, Lead Technologies Division, formerly known as Biomec Cardiovascular, Inc. from 2002 to June 2004. From 1998 through 2001, Mr. Blair led the manufacturing efforts at Astro Instrumentation, a medical device contract manufacturer. From 1989 to 1998 at Ciba Corning Diagnostics (now Bayer), Mr. Blair held managerial positions including Operations Manager, Materials Manager, Purchasing Manager and Production Supervisor. From 1985 to 1989, Mr. Blair was employed by Bailey Controls and held various positions in purchasing and industrial engineering. Mr. Blair started his career at Fisher Body, a division of General Motors, in production supervision. Mr. Blair has a B.B.A. degree in management and labor relations from Cleveland State University.

**Rodger A. Brown** has served as Vice President, Regulatory Affairs and Quality Assurance of our Company since November 2000. From July 1998 through November 2000, Mr. Brown served as our Director, Regulatory Affairs and Quality Assurance. Prior to joining our Company, Mr. Brown served as Director of Operations for Biocore Medical Technologies, Inc. from April 1997 to April 1998. From 1981 through 1996, Mr. Brown served as Director, Regulatory Affairs/Quality Assurance for E for M Corporation, a subsidiary of Marquette Electronics, Inc.

**Brent L. Larson** has served as Vice President, Finance, Chief Financial Officer and Treasurer of our Company since February 1999 and as Secretary since 2003. Prior to that, he served as our Vice President, Finance from July 1998 to January 1999 and as Controller from July 1996 to June 1998. Before joining our Company, Mr. Larson was employed by Price Waterhouse LLP. Mr. Larson has a B.B.A. degree in accounting from Iowa State University of Science and Technology and is a Certified Public Accountant.

**Douglas L. Rash** has served as Vice President, Marketing of our Company since January 2005. Prior to that, Mr. Rash was Neoprobe's Director, Marketing and Product Management from March to December 2004. Before joining our Company, Mr. Rash served as Vice President and General Manager of MTRE North America, Inc. from 2000 to 2003. From 1994 to 2000, Mr. Rash served as Vice President and General Manager (Medical Division) of Cincinnati Sub-Zero, Inc. From 1993 to 1994, Mr. Rash was Executive Vice President of Everest & Jennings International, Ltd. During his nine-year career at Gaymar Industries, Inc. from 1984 to 1993, Mr. Rash held positions as Vice President and General Manager (Clinicare Division) and Vice President, Marketing and Sales (Acute Care Division). From 1976 to 1984, Mr. Rash held management positions at various divisions of British Oxygen Corp. Mr. Rash has a B.S. degree in Business Administration with a minor in Chemistry from Wisconsin State University.

***Family Relationships***

There are no family relationships among the directors and executive officers of the company.

***Code of Conduct and Ethics***

We have adopted a code of business conduct and ethics that applies to our directors, officers and all employees. The code of business conduct and ethics is posted on our website at [www.neoprobe.com](http://www.neoprobe.com). The code of business conduct and ethics may be also obtained free of charge by writing to Neoprobe Corporation, Attn: Chief Financial Officer, 425 Metro Place North, Suite 300, Dublin, Ohio 43017.

**Executive Compensation****Summary Compensation Table**

The following table sets forth certain information concerning the annual and long-term compensation of our Chief Executive Officer and our other two highest paid executive officers during the last fiscal year (the Named Executives) for the last two fiscal years.

| <b>Name and Principal Position</b>                     | <b>Year</b> | <b>Salary</b> | <b>(a)<br/>Bonus</b> | <b>(b)<br/>Option<br/>Awards</b> | <b>(c)<br/>All Other<br/>Compensation</b> | <b>Total<br/>Compensation</b> |
|--|-------------|---------------|----------------------|----------------------------------|---|-------------------------------|
| Anthony K. Blair                                       | 2007        | \$ 134,000    | \$ 19,125            | \$ 8,550                         | \$ 3,887                                  | \$ 165,562                    |
| Vice President,<br>Manufacturing Operations            | 2006        | 122,000       | 4,575                | 12,324                           | 3,444                                     | 142,343                       |
| David C. Bupp  | 2007        | \$ 305,000    | \$ 60,000            | \$ 51,808                        | \$ 8,398                                  | \$ 425,206                    |
| President and<br>Chief Executive Officer               | 2006        | 305,000       | 20,000               | 60,006                           | 8,099                                     | 393,105                       |
| Brent L. Larson  | 2007        | \$ 170,000    | \$ 19,125            | \$ 10,184                        | \$ 4,896                                  | \$ 204,205                    |
| Vice President, Finance and<br>Chief Financial Officer | 2006        | 160,000       | 5,000                | 16,175                           | 4,576                                     | 185,751                       |

- (a) Bonuses, if any, have been disclosed for the year in which they were earned (i.e., the year to which the service relates).
- (b) Amount represents the dollar amount recognized for financial statement reporting purposes in accordance with SFAS No. 123(R). Assumptions made in the valuation of stock option awards are disclosed in Item 1(n) of the Notes to the Consolidated Financial Statements in this prospectus.
- (c) Amount represents life insurance premiums paid during the fiscal year for the benefit of the Named Executives and matching contributions under the Neoprobe Corporation 401(k) Plan (the Plan). Eligible employees may make voluntary contributions and we may, but are not obligated to, make matching contributions based on 40 percent of the employee's contribution, up to five percent of the employee's salary. Employee contributions are invested in mutual funds administered by an independent plan administrator. Company contributions, if any, are made in the form of shares of common stock. The Plan qualifies under section 401 of the Internal Revenue Code, which provides that employee and company contributions and income earned on contributions are not taxable to the employee until withdrawn from the Plan, and that we may deduct our contributions when made.

***Compensation of Mr. Bupp***

*Employment Agreement.* David C. Bupp is employed under a thirty-six (36) month employment agreement effective January 1, 2007. The employment agreement provides for an annual base salary of \$305,000. Effective January 1, 2008, Mr. Bupp's annual base salary was increased to \$325,000.

The Board of Directors and/or the Compensation, Nominating and Governance (CNG) Committee will, on an annual basis, review the performance of our company and of Mr. Bupp and may pay a bonus to Mr. Bupp as it deems appropriate, in its discretion. Such review and bonus will be consistent with any bonus plan adopted by the CNG Committee that covers the executive officers of our company generally.

If a change in control occurs with respect to our company and the employment of Mr. Bupp is concurrently or subsequently terminated:

by our company without cause (cause is defined as any willful breach of a material duty by Mr. Bupp in the course of his employment or willful and continued neglect of his duty as an employee);

by the expiration of the term of Mr. Bupp's employment agreement; or

by the resignation of Mr. Bupp because his title, authority, responsibilities, salary, bonus opportunities or benefits have materially diminished, a material adverse change in his working conditions has occurred, his services are no longer required in light of the company's business plan, or we breach the agreement; then, Mr. Bupp will be paid a severance payment of \$812,500 (less amounts paid as Mr. Bupp's salary and benefits that continue for the remaining term of the agreement if his employment is terminated without cause).

For purposes of Mr. Bupp's employment agreement, a change in control includes:

the acquisition, directly or indirectly, by a person (other than our company or an employee benefit plan established by the Board of Directors) of beneficial ownership of thirty percent (30%) or more of our securities with voting power in the next meeting of holders of voting securities to elect the directors;

a majority of the Directors elected at any meeting of the holders of our voting securities are persons who were not nominated by our then current Board of Directors or an authorized committee thereof;

our stockholders approve a merger or consolidation of our company with another person, other than a merger or consolidation in which the holders of our voting securities outstanding immediately before such merger or consolidation continue to hold voting securities in the surviving or resulting corporation (in the same relative proportions to each other as existed before such event) comprising eighty percent (80%) or more of the voting power for all purposes of the surviving or resulting corporation; or

our stockholders approve a transfer of substantially all of our assets to another person other than a transfer to a transferee, eighty percent (80%) or more of the voting power of which is owned or controlled by us or by the holders of our voting securities outstanding immediately before such transfer in the same relative proportions to each other as existed before such event.

Mr. Bupp will be paid a severance amount of \$406,250 if his employment is terminated at the end of his employment agreement or without cause. If Mr. Bupp is terminated without cause, his benefits will continue for the longer of thirty-six (36) months or the full term of the agreement.

***Compensation of Other Named Executives***

Our Executive Officers are employed under employment agreements of varying terms as outlined below. In addition, the CNG Committee will, on an annual basis, review the performance of our company and may pay bonuses to our executives as the CNG Committee deems appropriate, in its discretion. Such review and bonus will be consistent with any bonus plan adopted by the CNG Committee that covers Mr. Bupp as well as the executive officers of our company generally.

***Anthony K. Blair***

***Employment Agreement.*** Anthony Blair is employed under a twenty-four (24) month employment agreement effective January 1, 2007. The employment agreement provides for an annual base salary of \$134,000. Effective January 1, 2008, Mr. Blair's annual base salary was increased to \$150,000.

The CNG Committee will, on an annual basis, review the performance of our company and of Mr. Blair and we may pay a bonus to Mr. Blair as we deem appropriate, in our discretion. Such review and bonus will be consistent with any bonus plan adopted by the CNG Committee that covers the executive officers of our company generally.

If a change in control occurs with respect to our company and the employment of Mr. Blair is concurrently or subsequently terminated:

by our company without cause (cause is defined as any willful breach of a material duty by Mr. Blair in the course of his employment or willful and continued neglect of his duty as an employee);

by the expiration of the term of Mr. Blair's employment agreement; or

by the resignation of Mr. Blair because his title, authority, responsibilities, salary, bonus opportunities or benefits have materially diminished, a material adverse change in his working conditions has occurred, his services are no longer required in light of the company's business plan, or we breach the agreement; then, Mr. Blair will be paid a severance payment of \$268,000 and will continue his benefits for the longer of twelve (12) months or the remaining term of his employment agreement.

For purposes of Mr. Blair's employment agreement, a change in control includes:

the acquisition, directly or indirectly, by a person (other than our company or an employee benefit plan established by the Board of Directors) of beneficial ownership of thirty percent (30%) or more of our securities with voting power in the next meeting of holders of voting securities to elect the directors;

a majority of the directors elected at any meeting of the holders of our voting securities are persons who were not nominated by our then current Board of Directors or an authorized committee thereof;

our stockholders approve a merger or consolidation of our company with another person, other than a merger or consolidation in which the holders of our voting securities outstanding immediately before such merger or consolidation continue to hold voting securities in the surviving or resulting corporation (in the same relative proportions to each other as existed before such event) comprising eighty percent (80%) or more of the voting power for all purposes of the surviving or resulting corporation; or

our stockholders approve a transfer of substantially all of the assets of our company to another person other than a transfer to a transferee, eighty percent (80%) or more of the voting power of which is owned or controlled by us or by the holders of our voting securities outstanding immediately before such transfer in the same relative proportions to each other as existed before such event.

Mr. Blair will be paid a severance amount of \$134,000 if his employment is terminated at the end of his employment agreement or without cause. If Mr. Blair is terminated without cause, his benefits will continue for the longer of twelve (12) months or the full term of the agreement.

*Brent L. Larson*

*Employment Agreement.* Brent Larson is employed under a twenty-four (24) month employment agreement effective January 1, 2007. The employment agreement provides for an annual base salary of \$170,000. Effective January 1, 2008, Mr. Larson's annual base salary was increased to \$177,000.

The terms of Mr. Larson's employment agreement are substantially identical to Mr. Blair's employment agreement, except that:

If a change in control occurs with respect to our company and the employment of Mr. Larson is concurrently or subsequently terminated, then Mr. Larson will be paid a severance payment of \$340,000; and

Mr. Larson will be paid a severance amount of \$170,000 if his employment is terminated at the end of his employment agreement or without cause.

The CNG Committee will, on an annual basis, review the performance of our company and of Mr. Larson and we may pay a bonus to Mr. Larson as we deem appropriate, in our discretion. Such review and bonus will be consistent with any bonus plan adopted by the CNG Committee that covers the executive officers of our company generally.

**Outstanding Equity Awards at Fiscal Year End**

The following table presents certain information concerning outstanding equity awards held by the Named Executives as of December 31, 2007.

| Name             | Number of Securities                     |                              | Option<br>Exercise<br>Price | Option<br>Expiration<br>Date | Note |
|------------------|--|------------------------------|-----------------------------|------------------------------|------|
|                  | Underlying<br>Exercisable<br>Options (#) | Unexercised<br>Unexercisable |                             |                              |      |
| Anthony K. Blair | 50,000                                   |                              | \$0.60                      | 7/1/2014                     | (j)  |
|                  | 40,000                                   |                              | \$0.39                      | 12/10/2014                   | (l)  |
|                  | 30,000                                   |                              | \$0.26                      | 12/27/2015                   | (m)  |
|                  | 10,000                                   | 20,000                       | \$0.27                      | 12/15/2016                   | (n)  |
|                  |  | 20,000                       | \$0.35                      | 7/27/2017                    | (o)  |
| David C. Bupp    | 180,000                                  |                              | \$0.50                      | 1/4/2010                     | (d)  |
|                  | 180,000                                  |                              | \$0.41                      | 1/3/2011                     | (e)  |
|                  | 180,000                                  |                              | \$0.42                      | 1/7/2012                     | (f)  |
|                  | 100,000                                  |                              | \$0.14                      | 1/15/2013                    | (g)  |
|                  | 70,000                                   |                              | \$0.13                      | 2/15/2013                    | (h)  |
|                  | 150,000                                  |                              | \$0.30                      | 1/7/2014                     | (i)  |
|                  | 150,000                                  |                              | \$0.49                      | 7/28/2014                    | (k)  |
|                  | 200,000                                  |                              | \$0.39                      | 12/10/2014                   | (l)  |
|                  | 200,000                                  |                              | \$0.26                      | 12/27/2015                   | (m)  |
| 100,000          | 200,000                                  | \$0.27                       | 12/15/2016                  | (n)                          |      |
| Brent L. Larson  | 7,200                                    |                              | \$5.63                      | 1/28/2008                    | (a)  |
|                  | 25,000                                   |                              | \$1.50                      | 9/28/2008                    | (b)  |
|                  | 25,000                                   |                              | \$1.25                      | 2/11/2009                    | (c)  |
|                  | 60,000                                   |                              | \$0.50                      | 1/4/2010                     | (d)  |
|                  | 60,000                                   |                              | \$0.41                      | 1/3/2011                     | (e)  |
|                  | 50,000                                   |                              | \$0.42                      | 1/7/2012                     | (f)  |
|                  | 40,000                                   |                              | \$0.14                      | 1/15/2013                    | (g)  |
|                  | 30,000                                   |                              | \$0.13                      | 2/15/2013                    | (h)  |
|                  | 70,000                                   |                              | \$0.30                      | 1/7/2014                     | (i)  |
|                  | 50,000                                   |                              | \$0.49                      | 7/28/2014                    | (k)  |
|                  | 50,000                                   |                              | \$0.39                      | 12/10/2014                   | (l)  |
|                  | 40,000                                   |                              | \$0.26                      | 12/27/2015                   | (m)  |
|                  | 16,667                                   | 33,333                       | \$0.27                      | 12/15/2016                   | (n)  |

- (a) Options were granted 1/28/1998 and vested as to one-third immediately and on each of the first two anniversaries of the date of grant.
- (b) Options were granted 9/28/1998 and vested as to one-thirtieth (1/30) per month for thirty (30) months after the date of grant.
- (c) Options were granted 2/11/1999 and vested as to one-third immediately and on each of the first two anniversaries of the date of grant.
- (d)



Options were granted 1/4/2000 and vested as to one-third on each of the first three anniversaries of the date of grant.

- (e) Options were granted 1/3/2001 and vested as to one-third on each of the first three anniversaries of the date of grant.
- (f) Options were granted 1/7/2002 and vested as to one-third on each of the first three anniversaries of the date of grant.
- (g) Options were granted 1/15/2003 and vested as to one-third on each of the first three anniversaries of the date of grant.
- (h) Options were granted 2/15/2003 and vested as to one-third on each of the first three anniversaries of the date of grant.
- (i) Options were granted 1/7/2004 and vest as to one-third on each of the first three anniversaries of the date of grant.
- (j) Options were granted 7/1/2004 and vest as to one-third on each of the first three anniversaries of the date of grant.
- (k) Options were granted 7/28/2004 and vest as to one-third on each of the first three anniversaries of the date of grant.
- (l) Options were granted 12/10/2004 and vest as to one-third on each of the first three anniversaries of the date of grant.
- (m) Options were granted 12/27/2005 and vest as to one-third immediately and on each of the first two anniversaries of the date of grant.
- (n) Options were granted 12/15/2006 and vest as to one-third on each of the first three anniversaries of the date of grant.
- (o) Options were granted 7/27/2007 and vest as to one-third on each of the first three anniversaries of the date of grant.

**Compensation of Non-Employee Directors**

Non-employee directors received a quarterly retainer of \$2,500 and earned \$1,000 per board meeting attended in person or \$500 per telephonic board meeting during 2007. The Chairman of the Board and the Chairman of the Audit Committee each received an additional quarterly retainer of \$2,500 for their services in those capacities during 2007. Members of the Audit Committee and CNG Committee earned an additional \$500 per Audit or CNG Committee meeting attended, whether in person or telephonically. We also reimbursed non-employee directors for travel expenses for meetings attended during 2007.

On January 3, 2008, each non-employee director also received 10,000 options to purchase common stock as a part of our annual stock incentive grants. Options granted to purchase common stock vest on the first anniversary of the date of grant and have an exercise price equal to not less than the closing market price of common stock at the date of grant. The aggregate number of option awards outstanding at February 29, 2008 for each Director is set forth below in the footnotes to the beneficial ownership table provided below. Directors who are also officers or employees of Neoprobe do not receive any compensation for their services as directors.

The following table sets forth certain information concerning the compensation of non-employee Directors for the fiscal year ended December 31, 2007.

| <b>Name</b>                 | <b>(a)<br/>Fees<br/>Earned<br/>or Paid in<br/>Cash</b> | <b>(b)<br/>Option<br/>Awards</b> | <b>Total<br/>Compensation</b> |
|-----------------------------|--|----------------------------------|-------------------------------|
| Carl J. Aschinger, Jr.      | \$ 24,321  | \$ 3,510                         | \$ 27,831                     |
| Reuven Avital               | 18,500   | 3,510                            | 22,010                        |
| Kirby I. Bland, M.D.        | 18,500   | 3,510                            | 22,010                        |
| Owen E. Johnson, M.D.       | 8,000  | 2,018                            | 10,018                        |
| Julius R. Krevans, M.D. (c) | 16,207   | (171)                            | 16,036                        |
| Fred B. Miller              | 30,000   | 3,510                            | 33,510                        |
| J. Frank Whitley, Jr.       | 20,000   | 3,510                            | 23,510                        |

(a) Amount represents fees earned during the fiscal year ended December 31, 2007 (i.e., the year to which the service relates). Quarterly retainers are paid during the quarter in which they are earned. Meeting attendance fees are paid during the quarter following the

quarter in which they are earned.

(b) Amount represents the dollar amount recognized for financial statement reporting purposes in accordance with SFAS No. 123(R). Assumptions made in the valuation of stock option awards are disclosed in Item 1(n) of the Notes to the Consolidated Financial Statements included in this prospectus.

(c) Dr. Krevans ceased to be a director of the Company in July 2007. As a result, previously recorded expenses related to option awards that were forfeited upon his departure were reversed in accordance with SFAS No. 123(R).

**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT*****Security Ownership of Principal Stockholders, Directors, Nominees and Executive Officers and Related Stockholder Matters***

The following table sets forth, as of April 30, 2008, 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 percent of our outstanding shares of common stock, (ii) each director or nominee for director of our Company, (iii) each of the Named Executives (see Executive Compensation Summary Compensation Table ), and (iv) our directors and executive officers as a group.

| <b>Beneficial Owner</b>                               | <b>Number of Shares<br/>Beneficially Owned<br/>(* )</b> | <b>Percent<br/>of Class<br/>(**)</b> |
|---|---|--------------------------------------|
| Carl J. Aschinger, Jr.                                | 266,200 (a)   | (1)                                  |
| Reuven Avital   | 314,256 (b)   | (1)                                  |
| Anthony K. Blair                                      | 205,272 (c)   | (1)                                  |
| Kirby I. Bland, M.D.                                  | 160,000 (d)   | (1)                                  |
| David C. Bupp   | 7,042,746 (e)   | 9.4%                                 |
| Owen E. Johnson, M.D.                                 | (f)   | (1)                                  |
| Brent L. Larson                                       | 694,299 (g)   | 1.0%                                 |
| Fred B. Miller  | 316,000 (h)   | (1)                                  |
| J. Frank Whitley, Jr.                                 | 266,500 (i)   | (1)                                  |
| All directors and officers as a group<br>(11 persons) | 9,833,476 (j)(m)  | 12.7%                                |
| Platinum Montaur Life Sciences, LLC                   | 3,625,170 (k)   | 4.99%                                |

(\* ) 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  
April 30, 2008,  
plus the number  
of shares the  
person has the  
right to acquire  
within 60 days  
of April 30,  
2008.

(a) This amount  
includes  
130,000 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.

(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 175,000 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 Aragim Enterprise Ltd. (Ma Aragim), another investment fund under the management and control of Mr. Avital. On February 28, 2005, Ma Aragim 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 Aragim, 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 Aragim based on the satisfaction of certain developmental milestones on December 30, 2002, associated with our acquisition of Cardiosonix.

- (c) This amount includes 130,000 shares issuable upon exercise of options which are exercisable within 60 days and 25,272 shares in Mr. Blair's account in the 401(k) Plan, but it does not include 50,000 shares of unvested restricted stock and 90,000 shares issuable

upon exercise of  
options which  
are not  
exercisable  
within 60 days.



- (d) This amount includes 160,000 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 1,510,000 shares issuable upon exercise of options which are exercisable within 60 days, 1,145,000 warrants which are exercisable within 60 days, a promissory note convertible into 3,225,806 shares of our common stock, 210,511 shares that are held by Mr. Bupp's wife for which he disclaims beneficial ownership and 108,429 shares in Mr. Bupp's account in the 401(k) Plan, but it does not include 300,000 shares of unvested restricted stock and 400,000 shares issuable

upon exercise of options which are not exercisable within 60 days.

(f) This amount does not include 30,000 shares issuable upon exercise of options which are not exercisable within 60 days.

(g) This amount includes 516,667 shares issuable upon exercise of options which are exercisable within 60 days and 77,632 shares in Mr. Larson's account in the 401(k) Plan, but it does not include 50,000 shares of unvested restricted stock and 83,333 shares issuable upon exercise of options which are not exercisable within 60 days.

(h) This amount includes 235,000 shares issuable upon exercise of options which are exercisable within 60 days and 31,000 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.

- (i) This amount includes 265,000 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.
  
- (j) This amount includes 3,659,501 shares issuable upon exercise of options which are exercisable within 60 days, 1,145,000 warrants which are exercisable within 60 days, a promissory note convertible into 3,225,806 shares of our common stock, 241,511 shares that are held by spouses of our Directors and Officers for which they disclaim beneficial ownership and 221,702 shares held in the 401(k) Plan on behalf of certain officers,

but it does not include 420,000 shares of unvested restricted stock and 719,999 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 494,467 shares of common stock.

- (k) Platinum-Montaur Life Sciences, LLC (Montaur), 152 W. 57th Street, 54th Floor, New York, NY 10019, holds promissory notes in the principal amount of \$10,000,000 convertible into 21,794,871 shares of our common stock and warrants to purchase 14,333,333 shares of our common stock. Each of our convertible

promissory notes held by Montaur and warrants held by Montaur provide that those instruments are not convertible or exercisable if, after such conversion or exercise, Montaur would beneficially own more than 4.99% of our outstanding common stock.

This provision may be waived by Montaur giving us at least 61 days prior written notice. Similarly, each of our convertible promissory notes and warrants held by Montaur provides that those instruments are not convertible or exercisable if, after such conversion or exercise, Montaur would beneficially own more than 9.99% of our outstanding common stock, subject to Montaur's right to request a waiver of this restriction in writing at least 61 days prior to the effective date of that waiver.

- (1) Less than one percent.

(m) The address of all directors and executive offices is c/o Neoprobe Corporation, 425 Metro Place North, Suite 300, Dublin, Ohio 43017-1367.

### **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

In December 2004, we completed a private placement of four-year convertible promissory notes in an aggregate principal amount of \$8.1 million under a Securities Purchase Agreement with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and David C. Bupp, our President and CEO. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC (collectively, the Great Point Funds). The notes originally bore interest at 8% per annum and were due on December 13, 2008. As part of the original transaction, we issued the investors 10,125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, expiring in December 2009. In connection with this financing, we also issued 1,600,000 Series U warrants to purchase our common stock to the placement agents, containing substantially the same terms as the warrants issued to the investors.

In November 2006, we amended the Securities Purchase Agreements with the Great Point Funds and Mr. Bupp and modified several of the key terms in the related notes. The modified notes bore interest at 12% per annum, payable quarterly. The maturity of the notes was modified as follows: \$500,000 due January 8, 2007; \$1,250,000 due July 9, 2007; \$1,750,000 due January 7, 2008; \$2,000,000 due July 7, 2008 and the remaining \$2,600,000 due January 7, 2009. We were also required to make mandatory repayments of principal to the Great Point Funds under certain circumstances such as asset dispositions, partnering transactions and sales of equity. During 2007, we made \$625,000 of such mandatory repayments that were applied against future scheduled principal payments. In exchange for the increased interest rate and accelerated principal repayment schedule, the note holders eliminated the financial covenants under the original notes and eliminated certain conversion price adjustments from the original notes related to sales of equity securities by Neoprobe. In addition, Neoprobe was allowed to make optional prepayments to the Great Point Funds by giving them 10 business days notice during which time the note holders could decide to convert the notes into our common stock. The new notes remained freely convertible into shares of our common stock at a price of \$0.40 per share. We could force conversion of the notes prior to their stated maturity under certain circumstances. The convertible promissory note issued to Mr. Bupp in connection with this transaction had an outstanding principal amount of \$0 on December 31, 2007 as a result of being refinanced on December 26, 2007. We made interest payments due under the note to Mr. Bupp totaling \$11,868 during the fiscal year ended December 31, 2007.

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 500,000 Series V warrants to purchase our common stock at an exercise price of \$0.31 per share, expiring in July 2012.

In connection with the Montaur Purchase Agreement, 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 an additional 500,000 Series V warrants to purchase 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 December 31, 2007, and an outstanding principal amount of \$1.0 million as of April 30, 2008. We made interest payments due under the Amended Bupp Note totaling \$49,462 during the fiscal year ended December 31, 2007. We have made no payments of principal on the Amended Bupp Note.

We applied \$5,725,000 from the proceeds of our issuance of the Series A Note and Series W warrants to Montaur to the complete repayment of our outstanding obligations under the Replacement Series A Convertible Promissory Notes issued to the Great Point Funds and David C. Bupp as of November 30, 2006, pursuant to the Securities Purchase Agreement, dated as of December 13, 2004, by and among Neoprobe, the Great Point Funds and Mr. Bupp, as amended by the Amendment dated as of November 30, 2006 (the Amended GPP Purchase Agreement). We applied an additional \$675,000 from the proceeds of our issuance of the Series A Note and Series W warrants to Montaur to the redemption of 10,000,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to the Great Point Funds pursuant to the Amended GPP Purchase Agreement. In connection with the consummation of the Montaur Purchase Agreement and amendment of the Bupp Purchase Agreement, Mr. Bupp agreed to the cancellation of 125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to Mr. Bupp pursuant to the Amended GPP Purchase Agreement without additional consideration to Mr. Bupp other than discussed above.

It is our practice and policy to comply with all applicable laws, rules and regulations regarding related-person transactions, including the Sarbanes-Oxley Act of 2002. A related person is an executive officer, director or more than 5% stockholder of Neoprobe, including any immediate family members, and any entity owned or controlled by such persons. Our Board of Directors (excluding any interested director) is charged with reviewing and approving all related-person transactions, and a special committee of our Board of Directors is established to negotiate the terms of such transactions. In considering related-person transactions, our Board of Directors takes into account all relevant available facts and circumstances.

#### **Director Independence**

Our Board of Directors has adopted the definition of independence as described under the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley) Section 301, Rule 10A-3 under the Securities Exchange Act of 1934 (the Exchange Act) and Nasdaq Rules 4200 and 4350. Our Board of Directors has determined that Messrs. Aschinger, Avital, Miller and Whitley, and Drs. Bland and Johnson meet the independence requirements.

### **DESCRIPTION OF CAPITAL STOCK**

#### Authorized and Issued Stock

| Title of Class                               | Number of Shares at April 30, 2008 |             |            |
|--|------------------------------------|-------------|------------|
|  | Authorized                         | Outstanding | Reserved   |
| Common Stock, \$0.001 par value per share    | 150,000,000                        | 68,950,821  | 50,977,311 |
| Preferred Stock, \$0.001 par value per share | 5,000,000                          | 0           | 5,000,000  |

#### **Common Stock**

##### ***Dividends***

Each share of common stock is entitled to receive an equal dividend, if one is declared, which is unlikely. We have never paid dividends on our common stock and do not intend to do so in the foreseeable future. We intend to retain any future earnings to finance our growth. See Risk Factors.

##### ***Liquidation***

If our company is liquidated, any assets that remain after the creditors are paid, and the owners of preferred stock receive any liquidation preferences, will be distributed to the owners of our common stock pro-rata.

##### ***Voting Rights***

Each share of our common stock entitles the owner to one vote. There is no cumulative voting. A simple majority can elect all of the directors at a given meeting and the minority would not be able to elect any directors at that meeting.



***Preemptive Rights***

Owners of our common stock have no preemptive rights. We may sell shares of our common stock to third parties without first offering it to current stockholders.

***Redemption Rights***

We do not have the right to buy back shares of our common stock except in extraordinary transactions such as mergers and court approved bankruptcy reorganizations. Owners of our common stock do not ordinarily have the right to require us to buy their common stock. We do not have a sinking fund to provide assets for any buy back.

***Conversion Rights***

Shares of our common stock can not be converted into any other kind of stock except in extraordinary transactions, such as mergers and court approved bankruptcy reorganizations.

**Preferred Stock**

Our certificate of incorporation authorizes our board of directors to issue blank check preferred stock. The board of directors may divide this stock into series and set their rights. On December 26, 2007, the board of directors designated 3,000 shares of preferred stock as 8% Series A Convertible Preferred Stock. As of April 30, 2008, we had not issued any shares of 8% Series A Convertible Preferred Stock. However, pursuant to the terms of the Securities Purchase Agreement between the Company and Platinum-Montaur Life Sciences, LLC (Montaur), upon completion of enrollment of 200 patients in the Phase 3 clinical studies of Lymphoseek, we will issue Montaur 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock. Montaur may convert all or any portion the shares of 8% Series A Cumulative Convertible Preferred Stock into a number of shares of our common stock equal to the quotient of: (1) the Liquidation Preference Amount of the shares of 8% Series A Cumulative Convertible Preferred Stock by (2) the Conversion Price then in effect for the 8% Series A Cumulative Convertible Preferred Stock. The Liquidation Preference Amount is equal to \$1,000 per share of 8% Series A Cumulative Convertible Preferred Stock, and the Conversion Price is equal to the lesser of \$0.50 and the closing price of the common stock on the issuance date of the 8% Series A Cumulative Convertible Preferred Stock.

The board of directors may, without prior stockholder approval, issue any of the 5,000,000 shares of preferred stock with dividend, liquidation, conversion, voting or other rights which could adversely affect the relative voting power or other rights of the common stock. Preferred stock could be used as a method of discouraging, delaying, or preventing a take-over of our company. If we do issue preferred stock in the future, it could have a dilutive effect upon the common stock. See Risk Factors.

**Anti-Takeover Charter Provisions and Laws**

Some features of our certificate of incorporation and by-laws and the Delaware General Corporation Law (DGCL), which are further described below, may have the effect of deterring third parties from making takeover bids for control of our company or may be used to hinder or delay a takeover bid. This would decrease the chance that our stockholders would realize a premium over market price for their shares of common stock as a result of a takeover bid. See Risk Factors.

### **Limitations on Stockholder Actions**

Our certificate of incorporation provides that stockholder action may only be taken at a meeting of the stockholders. Thus, an owner of a majority of the voting power could not take action to replace the board of directors, or any class of directors, without a meeting of the stockholders, nor could he amend the by-laws without presenting the amendment to a meeting of the stockholders. Furthermore, under the provisions of the certificate of incorporation and by-laws, only the board of directors has the power to call a special meeting of stockholders. Therefore, a stockholder, even one who owns a majority of the voting power, may neither replace sitting board of directors members nor amend the by-laws before the next annual meeting of stockholders.

### **Advance Notice Provisions**

Our by-laws establish advance notice procedures for the nomination of candidates for election as directors by stockholders, as well as for other stockholder proposals to be considered at annual meetings. Generally, we must receive a notice of intent to nominate a director or raise any other matter at a stockholder meeting not less than 120 days before the first anniversary of the mailing of our proxy statement for the previous year's annual meeting. The notice must contain required information concerning the person to be nominated or the matters to be brought before the meeting and concerning the stockholder submitting the proposal.

### **Delaware Law**

We are incorporated in Delaware, and as such are subject to Section 203 of the DGCL, which provides that a corporation may not engage in any business combination with an interested stockholder during the three years after he becomes an interested stockholder unless:

the corporation's board of directors approved in advance either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

the interested stockholder owned at least 85 percent of the corporation's voting stock at the time the transaction commenced; or

the business combination is approved by the corporation's board of directors and the affirmative vote of at least two-thirds of the voting stock which is not owned by the interested stockholder.

An interested stockholder is anyone who owns 15 percent or more of a corporation's voting stock, or who is an affiliate or associate of the corporation and was the owner of 15 percent or more of the corporation's voting stock at any time within the previous three years; and the affiliates and associates of any those persons. Section 203 of the DGCL makes it more difficult for an interested stockholder to implement various business combinations with our company for a three-year period, although our stockholders may vote to exclude it from the law's restrictions.

### **Classified Board**

Our certificate of incorporation and by-laws divide our board of directors into three classes with staggered three year terms. There are currently seven directors, three in one class and two in each of two additional classes. At each annual meeting of stockholders, the terms of one class of directors will expire and the newly nominated directors of that class will be elected for a term of three years. The board of directors will be able to determine the total number of directors constituting the full board of directors and the number of directors in each class, but the total number of directors may not exceed 17 nor may the number of directors in any class exceed six. Subject to these rules, the classes of directors need not have equal numbers of members. No reduction in the total number of directors or in the number of directors in a given class will have the effect of removing a director from office or reducing the term of any then sitting director. Stockholders may only remove directors for cause. If the board of directors increases the number of directors in a class, it will be able to fill the vacancies created for the full remaining term of a director in that class even though the term may extend beyond the next annual meeting. The directors will also be able to fill any other vacancies for the full remaining term of the director whose death, resignation or removal caused the vacancy.

A person who has a majority of the voting power at a given meeting will not in any one year be able to replace a majority of the directors since only one class of the directors will stand for election in any one year. As a result, at least two annual meeting elections will be required to change the majority of the directors by the requisite vote of stockholders. The purpose of classifying the board of directors is to provide for a continuing body, even in the face of a person who accumulates a sufficient amount of voting power, whether by ownership or proxy or a combination, to have a majority of the voting power at a given meeting and who may seek to take control of our company without paying a fair premium for control to all of the owners of our common stock. This will allow the board of directors time to negotiate with such a person and to protect the interests of the other stockholders who may constitute a majority of the shares not actually owned by that person. However, it may also have the effect of deterring third parties from making takeover bids for control of our company or may be used to hinder or delay a takeover bid.

## THE FUSION TRANSACTION

### General

Fusion Capital, the selling stockholder under this prospectus, is offering for sale up to 13,440,000 shares of our common stock hereunder. On December 1, 2006, we entered into a common stock purchase agreement with Fusion Capital, an Illinois limited liability company. Under the terms of the common stock purchase agreement we have agreed to issue Fusion Capital a commitment fee consisting of 1,440,000 shares of our common stock, of which we have issued 954,000 shares as of April 30, 2008, and we will issue the remaining 486,000 shares of the commitment fee pro rata as we sell \$4.05 million of our common stock to Fusion Capital. We have authorized up to 12,000,000 shares of our common stock for sale to Fusion Capital under the agreement. As of April 30, 2008, there were 68,950,821 shares of our common stock outstanding (66,874,887 shares held by non-affiliates) excluding the 4,431,329 shares which have not yet been purchased by Fusion Capital as a part of the 12,000,000 shares offered pursuant to this prospectus and the remaining 486,000 commitment fee shares to be issued pro rata as we sell the remaining \$4.05 million of the overall \$6 million commitment of our common stock to Fusion Capital. If all of such 13,440,000 shares offered hereby were issued and outstanding as of the date hereof, the 12,000,000 shares would represent 16.2% of the total common stock outstanding or 16.7% of the non-affiliates shares outstanding as of the date hereof. The number of shares ultimately offered for sale by Fusion Capital is dependent upon the number of shares purchased by Fusion Capital under the agreement.

We do not have the right to commence any sales of our shares to Fusion Capital until the Securities & Exchange Commission has declared effective the registration statement of which this prospectus forms a part. After the Securities & Exchange Commission has declared effective such registration statement, generally we have the right but not the obligation from time to time to sell our shares to Fusion Capital in amounts between \$50,000 and \$1.0 million depending on certain conditions set forth in the common stock purchase agreement we have entered into with Fusion Capital. We have the right to control the timing and amount of any sales of our shares to Fusion Capital. The purchase price of the shares will be determined based upon the market price of our shares without any fixed discount at the time of each sale. Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock on any business day that the price of our common stock is below \$0.20. The common stock purchase agreement may be terminated by us at any time at our discretion without any cost to us.

### Purchase Of Shares Under The Common Stock Purchase Agreement

Under the common stock purchase agreement, on any business day selected by us, we may direct Fusion Capital to purchase up to \$50,000 of our common stock. The purchase price per share is equal to the lesser of:

the lowest sale price of our common stock on the purchase date; or

the average of the three (3) lowest closing sale prices of our common stock during the twelve (12) consecutive business days prior to the date of a purchase by Fusion Capital.

The purchase price will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute the purchase price. We may direct Fusion Capital to make multiple purchases from time to time in our sole discretion; no sooner than every four (4) business days.

### Our Right To Increase the Amount to be Purchased

In addition to purchases of up to \$50,000 from time to time, we may also from time to time elect on any single business day selected by us to require Fusion Capital to purchase our shares in an amount up to \$100,000 provided that our share price is not below \$0.30 during the two (2) business days prior to and on the purchase date. We may increase this amount to up to \$250,000 if our share price is not below \$0.60 during the two (2) business days prior to and on the purchase date. This amount may also be increased to up to \$500,000 if our share price is not below \$0.80 during the two (2) business days prior to

and on the purchase date. This amount may also be increased to up to \$1 million if our share price is not below \$1.20 during the two (2) business days prior to and on the purchase date. We may direct Fusion Capital to make multiple large purchases from time to time in our sole discretion; however, at least three (3) business days must have passed since the most recent large purchase was completed. The price at which our common stock would be purchased in this type of larger purchases will be the lesser of (i) the lowest sale price of our common stock on the purchase date and (ii) the lowest purchase price (as described above) during the previous eight (8) business days prior to the purchase date.

#### **Minimum Purchase Price**

Under the common stock purchase agreement, we have set a minimum purchase price ( floor price ) of \$0.20. However, Fusion Capital shall not have the right nor the obligation to purchase any shares of our common stock in the event that the purchase price would be less than the floor price. Specifically, Fusion Capital shall not have the right or the obligation to purchase shares of our common stock on any business day that the market price of our common stock is below \$0.20.

#### **Events of Default**

Generally, Fusion Capital may terminate the common stock purchase agreement without any liability or payment to the Company upon the occurrence of any of the following events of default:

the effectiveness of the registration statement of which this prospectus is a part of lapses for any reason (including, without limitation, the issuance of a stop order) or is unavailable to Fusion Capital for sale of our common stock offered hereby and such lapse or unavailability continues for a period of ten (10) consecutive business days or for more than an aggregate of thirty (30) business days in any 365-day period;

suspension by our principal market of our common stock from trading for a period of three (3) consecutive business days;

the de-listing of our common stock from our principal market provided our common stock is not immediately thereafter trading on the Nasdaq Global Market, the Nasdaq Capital Market, the New York Stock Exchange or the American Stock Exchange;

the transfer agent's failure for five (5) business days to issue to Fusion Capital shares of our common stock which Fusion Capital is entitled to under the common stock purchase agreement;

any material breach of the representations or warranties or covenants contained in the common stock purchase agreement or any related agreements which has or which could have a material adverse effect on us subject to a cure period of ten (10) business days;

any participation or threatened participation in insolvency or bankruptcy proceedings by or against us; or

any change in our business properties, operations, financial condition or results of operations of the Company and its Subsidiaries that could reasonably be expected to have a material adverse effect.

#### **Our Termination Rights**

We have the unconditional right at any time for any reason to give notice to Fusion Capital terminating the common stock purchase agreement without any cost to us.

**No Short-Selling or Hedging by Fusion Capital**

Fusion Capital has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the common stock purchase agreement.

**Commitment Shares Issued to Fusion Capital**

Under the terms of the common stock purchase agreement, Fusion Capital has received a commitment fee consisting of 720,000 shares of our common stock. In connection with purchases of our common stock by Fusion Capital, we will issue up to 720,000 shares of common stock to Fusion Capital as an additional commitment fee. These additional shares will be issued pro rata based on the proportion that a dollar amount purchased by Fusion bears to the \$6.0 million aggregate amount under the purchase agreement with Fusion Capital. Generally, unless an event of default occurs, Fusion Capital must own at least the commitment shares issued to Fusion Capital until 24 months from the date of the agreement or until the agreement is terminated.

**Effect of Performance of the Common Stock Purchase Agreement on Our Stockholders**

All 13,440,000 shares registered in this offering are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 24 months from the date of this prospectus. The sale by Fusion Capital of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Fusion Capital may ultimately purchase all, some or none of the 4,431,329 shares of common stock not yet issued as of April 30, 2008, but registered in this offering. After it has acquired such shares, it may sell all, some or none of such shares. Therefore, sales to Fusion Capital by us under the agreement may result in substantial dilution to the interests of other holders of our common stock. However, we have the right to control the timing and amount of any sales of our shares to Fusion Capital and the agreement may be terminated by us at any time at our discretion without any cost to us.

In connection with entering into the agreement, we authorized the sale to Fusion Capital of up to 12,000,000 shares of our common stock. As of April 30, 2008, Fusion Capital had purchased 7,568,671 of the available 12,000,000 shares of our common stock, resulting in total proceeds to the Company of \$1.95 million. The number of shares ultimately offered for sale by Fusion Capital under this prospectus is dependent upon the number of shares purchased by Fusion Capital under the agreement. The following table sets forth the amount of proceeds we would receive from Fusion Capital from the sale of the remaining 4,431,329 shares available at varying purchase prices:

| <b>Assumed<br/>Average<br/>Purchase Price</b> | <b>Number of<br/>Shares<br/>Remaining to<br/>be<br/>Issued if Full<br/>Purchase</b> | <b>Percentage of<br/>Outstanding<br/>Shares<br/>After Giving<br/>Effect to<br/>the Issuance to<br/>Fusion<br/>Capital<sup>(1)</sup></b> | <b>Proceeds from the<br/>Sale of<br/>Remaining Shares<br/>to<br/>Fusion Capital<br/>Under the<br/>Common Stock<br/>Purchase<br/>Agreement</b> |
|---|---|---|---|
| \$0.20  | 4,431,329   | 7.47%   | \$ 886,266  |
| \$0.50  | 4,431,329   | 7.67%   | \$ 2,215,665  |
| \$0.54 <sup>(2)</sup>                         | 4,431,329   | 7.70%   | \$ 2,392,918  |
| \$0.75  | 4,431,329   | 7.84%   | \$ 3,323,497  |
| \$1.00  | 4,050,000   | 7.47%   | \$ 4,050,000  |

(1) Based on 68,950,821 shares outstanding as of April 30, 2008. Includes

the applicable  
portion of the  
1,440,000  
shares issued  
and issuable to  
Fusion Capital  
as a  
commitment fee  
and the number  
of shares  
issuable under  
the agreement at  
the  
corresponding  
assumed  
purchase price  
set forth in the  
adjacent  
column.

- (2) Closing sale  
price of our  
shares on  
April 30, 2008.

**SELLING STOCKHOLDER**

The following table presents information regarding the selling stockholder and the shares that may be sold by it pursuant to this prospectus. Neither the selling stockholder nor any of its affiliates has held a position or office, or had any other material relationship with us.

| <b>Selling<br/>Stockholder</b>     | <b>Shares<br/>Owned<br/>Before<br/>Offering</b> | <b>Percentage<br/>of<br/>Outstanding<br/>Shares<br/>Owned<br/>Before<br/>Offering (1)</b> | <b>Shares to<br/>be Sold in<br/>the Offering</b> | <b>Percentage<br/>of<br/>Outstanding<br/>Shares<br/>Owned<br/>After<br/>Offering<br/>(1)</b> |
|------------------------------------|---|---|--|--|
| Fusion Capital Fund II, LLC (1)(2) | 970,832   | 1.6%  | 13,440,000                                       | 0.3%   |

(1) As of the date of the common stock purchase agreement Fusion Capital beneficially owned 250,832 shares of our common stock. As of April 30, 2008, there were 68,950,821 shares outstanding which includes 954,000 shares issued to Fusion Capital as a commitment fee and the 7,568,671 shares acquired by Fusion Capital pursuant to the stock purchase agreement. Percentage of outstanding shares beneficially owned after



offering is based on 73,868,150 shares which includes the remaining 4,431,329 shares that may be sold to Fusion Capital and the remaining 486,000 commitment shares which may be issued in connection with the offering.

- (2) Steven G. Martin and Joshua B. Scheinfeld, the principals of Fusion Capital, are deemed to be beneficial owners of all of the shares of common stock owned by Fusion Capital. Messrs. Martin and Scheinfeld have shared voting and disposition power over the shares being offered under this prospectus.

### PLAN OF DISTRIBUTION

The common stock offered by this prospectus is being offered by Fusion Capital Fund II, LLC, the selling stockholder. The common stock may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this Prospectus may be effected in one or more of the following methods:

ordinary brokers transactions;

transactions involving cross or block trades;

through brokers, dealers, or underwriters who may act solely as agents;

at the market into an existing market for the common stock;

in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;

in privately negotiated transactions; or

any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

Brokers, dealers, underwriters, or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions.

Fusion Capital is an underwriter within the meaning of the Securities Act.

Neither we nor Fusion Capital can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between Fusion Capital, any other stockholder, broker, dealer, underwriter, or agent relating to the sale or distribution of the shares offered by this Prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters, or dealers and any compensation from the selling stockholder, and any other required information.

We will pay all of the expenses incident to the registration, offering, and sale of the shares to the public other than commissions or discounts of underwriters, broker-dealers, or agents. We have also agreed to indemnify Fusion Capital and related persons against specified liabilities, including liabilities under the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

Fusion Capital and its affiliates have agreed not to engage in any direct or indirect short selling or hedging of our common stock during the term of the common stock purchase agreement.

We have advised Fusion Capital that while it is engaged in a distribution of the shares included in this Prospectus it is required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete.

Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with

the distribution of that security. All of the foregoing may affect the marketability of the shares offered hereby this Prospectus.

This offering will terminate on the date that all shares offered by this Prospectus have been sold by Fusion Capital.

**DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR  
SECURITIES ACT LIABILITIES**

Section 145 of the General Corporation Law of the State of Delaware (Section 145) provides that directors and officers of Delaware corporations may, under certain circumstances, be indemnified against expenses (including attorneys' fees) and other liabilities actually and reasonably incurred by them as a result of any suit brought against them in their capacity as a director or officer, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, if they had no reasonable cause to believe their conduct was unlawful. Section 145 also provides that directors and officers may also be indemnified against expenses (including attorneys' fees) incurred by them in connection with a derivative suit if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification may be made without court approval if such person was adjudged liable to the corporation.

Article V of the Company's By-laws contains provisions which require that the Company indemnify its officers, directors, employees and agents, in substantially the same language as Section 145.

Article Nine, section (b), of the Company's Certificate of Incorporation further provides that no director will be personally liable to the Company or its stockholders for monetary damages or for any breach of fiduciary duty except for breach of the director's duty of loyalty to the Company or its stockholders, for acts or omissions not in good faith or involving intentional misconduct or a knowing violation of law, pursuant to Section 174 of the Delaware General Corporation Law (which imposes liability in connection with the payment of certain unlawful dividends, stock purchases or redemptions), or any amendment or successor provision thereto, or for any transaction from which a director derived an improper personal benefit.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to the directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities (other than the payment by the small business issuer of expenses incurred or paid by a directors, officers or controlling person of the small business issuer in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

**LEGAL OPINION**

The validity of the shares offered hereby has been passed upon for us by Porter, Wright, Morris & Arthur LLP, 41 South High Street, Columbus, Ohio 43215.

**EXPERTS**

The consolidated financial statements included in this Prospectus for the years ended December 31, 2007 and 2006 have been audited by BDO Seidman, LLP, an independent registered public accounting firm, to the extent and for the periods set forth in their report appearing elsewhere herein and are included in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

### **ADDITIONAL INFORMATION**

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file reports, proxy statements and other information with the Securities and Exchange Commission. These reports, proxy statements and other information may be inspected and copied at the public reference facilities maintained by the Securities and Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549 and at the Securities and Exchange Commission's regional offices located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 233 Broadway, New York, New York 10279. You can obtain copies of these materials from the Public Reference Section of the Securities and Exchange Commission upon payment of fees prescribed by the Securities and Exchange Commission. You may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission's Web site contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of that site is <http://www.sec.gov>.

We have filed a Registration Statement on Form S-1 with the Securities and Exchange Commission under the Securities Act of 1933, as amended, with respect to the securities offered in this prospectus. This prospectus, which is filed as part of a Registration Statement, does not contain all of the information set forth in the Registration Statement, some portions of which have been omitted in accordance with the Securities and Exchange Commission's rules and regulations. Statements made in this prospectus as to the contents of any contract, agreement or other document referred to in this prospectus are not necessarily complete and are qualified in their entirety by reference to each such contract, agreement or other document which is filed as an exhibit to the Registration Statement. The Registration Statement may be inspected without charge at the public reference facilities maintained by the Securities and Exchange Commission, and copies of such materials can be obtained from the Public Reference Section of the Securities and Exchange Commission at prescribed rates. You may also obtain additional information regarding the company on our website, located at <http://www.neoprobe.com>

**NEOPROBE CORPORATION and SUBSIDIARIES**  
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**Report of Independent Registered Public Accounting Firm**

Board of Directors  
Neoprobe Corporation  
Dublin, Ohio

We have audited the accompanying consolidated balance sheets of Neoprobe Corporation as of December 31, 2007 and 2006 and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the two years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Neoprobe Corporation at December 31, 2007 and 2006 and the results of its operations and its cash flows for the two years then ended in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2006, the Company adopted Statement of Financial Accounting Standards No. 123R, Share-Based Payment using the modified prospective transition method.

/s/ BDO Seidman, LLP

Chicago, Illinois  
March 28, 2008

**Neoprobe Corporation and Subsidiaries**  
**Consolidated Balance Sheets**  
*December 31, 2007 and 2006*

|  | <b>2007</b>  | <b>2006</b>  |
|--|--------------|--------------|
| <b>ASSETS</b>                                  |              |              |
| Current assets:                                |              |              |
| Cash   | \$ 1,540,220 | \$ 2,502,655 |
| Accounts receivable, net                       | 1,621,910    | 1,246,089    |
| Inventory                                      | 1,237,403    | 1,154,376    |
| Prepaid expenses and other                     | 247,035      | 430,623      |
| <br>   |              |              |
| Total current assets                           | 4,646,568    | 5,333,743    |
| <br>   |              |              |
| Property and equipment                         | 1,918,343    | 2,238,050    |
| Less accumulated depreciation and amortization | 1,630,740    | 1,882,371    |
|  | 287,603      | 355,679      |
| <br>   |              |              |
| Patents and trademarks                         | 3,016,783    | 3,131,391    |
| Acquired technology                            | 237,271      | 237,271      |
|  | 3,254,054    | 3,368,662    |
| Less accumulated amortization                  | 1,652,912    | 1,540,145    |
|  | 1,601,142    | 1,828,517    |
| <br>   |              |              |
| Other assets                                   | 527,634      | 515,593      |
| <br>   |              |              |
| Total assets                                   | \$ 7,062,947 | \$ 8,033,532 |

**Continued**

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

|  | <b>2007</b>      | <b>2006</b>      |
|--|------------------|------------------|
| <b>LIABILITIES AND STOCKHOLDERS DEFICIT</b>  |                  |                  |
| Current liabilities:   |                  |                  |
| Accounts payable   | \$ 778,085       | \$ 668,288       |
| Accrued liabilities and other  | 801,949          | 544,215          |
| Capital lease obligations  | 14,592           | 14,841           |
| Deferred revenue   | 451,512          | 348,568          |
| Notes payable to finance companies   | 124,770          | 136,925          |
| Notes payable to investors, current portion, net of discount of \$53,585   |                  | 1,696,415        |
| <br>Total current liabilities  | <br>2,170,908    | <br>3,409,252    |
| <br>Capital lease obligations  | <br>2,422        | <br>17,014       |
| Deferred revenue   | 623,640          | 40,495           |
| Notes payable to CEO, net of discounts of \$95,786 and \$19,030, respectively  | 904,214          | 80,970           |
| Notes payable to investors, net of discounts of \$2,600,392 and \$1,468,845, respectively  | 4,399,608        | 4,781,155        |
| Derivative liabilities   | 2,853,476        |                  |
| Other liabilities  | 52,273           | 2,673            |
| <br>Total liabilities  | <br>11,006,541   | <br>8,331,559    |
| <br>Commitments and contingencies  |                  |                  |
| Stockholders' deficit:   |                  |                  |
| Preferred stock; \$.001 par value; 5,000,000 shares authorized at December 31, 2007 and 2006; none issued and outstanding  |                  |                  |
| Common stock; \$.001 par value; 150,000,000 shares authorized; 67,240,030 and 59,624,379 shares issued and outstanding at December 31, 2007 and 2006, respectively | 67,240           | 59,624           |
| Additional paid-in capital   | 136,765,697      | 135,330,668      |
| Accumulated deficit  | (140,776,531)    | (135,688,319)    |
| <br>Total stockholders' deficit  | <br>(3,943,594)  | <br>(298,027)    |
| <br>Total liabilities and stockholders' deficit  | <br>\$ 7,062,947 | <br>\$ 8,033,532 |

See accompanying notes to consolidated financial statements.

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**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statements of Operations**

|                                      | <b>Years Ended December 31,</b> |                |
|--------------------------------------|---------------------------------|----------------|
|                                      | <b>2007</b>                     | <b>2006</b>    |
| Net sales                            | \$ 7,124,811                    | \$ 6,051,071   |
| Cost of goods sold                   | 3,184,706                       | 2,632,131      |
| Gross profit                         | 3,940,105                       | 3,418,940      |
| Operating expenses:                  |                                 |                |
| Research and development             | 2,865,539                       | 3,803,060      |
| Selling, general and administrative  | 2,837,344                       | 3,076,379      |
| Total operating expenses             | 5,702,883                       | 6,879,439      |
| Loss from operations                 | (1,762,778)                     | (3,460,499)    |
| Other income (expense):              |                                 |                |
| Interest income                      | 70,976                          | 225,468        |
| Interest expense                     | (2,284,135)                     | (1,496,332)    |
| Loss on extinguishment of debt       | (859,955)                       |                |
| Change in derivative liabilities     | (247,876)                       |                |
| Other                                | (4,444)                         | (9,853)        |
| Total other expenses                 | (3,325,434)                     | (1,280,717)    |
| Net loss                             | \$ (5,088,212)                  | \$ (4,741,216) |
| Net loss per common share:           |                                 |                |
| Basic                                | \$ (0.08)                       | \$ (0.08)      |
| Diluted                              | \$ (0.08)                       | \$ (0.08)      |
| Weighted average shares outstanding: |                                 |                |
| Basic                                | 62,921,491                      | 58,586,593     |
| Diluted                              | 62,921,491                      | 58,586,593     |

See accompanying notes to consolidated financial statements.

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**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statements of Stockholders Equity (Deficit)**

|   | Common Stock<br>Shares | Common Stock<br>Amount | Additional<br>Paid-in<br>Capital | Accumulated<br>Deficit | Accumulated<br>Other<br>Comprehensive<br>Income | Total        |
|---|------------------------|------------------------|----------------------------------|------------------------|---|--------------|
| Balance, December 31,<br>2005   | 58,622,059             | \$ 58,622              | \$ 134,903,259                   | \$ (130,947,103)       | \$ 2,018  | \$ 4,016,796 |
| Issued stock to 401(k)<br>plan at \$0.39  | 67,987                 | 68                     | 26,545                           |                        |   | 26,613       |
| Issued stock as a<br>commitment fee in<br>connection with stock<br>purchase agreement | 720,000                | 720                    | 179,280                          |                        |   | 180,000      |
| Issued stock in<br>connection with stock<br>purchase agreement,<br>net of costs       | 214,333                | 214                    |                                  |                        |   | 214          |
| Stock compensation<br>expense   |                        |                        | 221,584                          |                        |   | 221,584      |
| Comprehensive<br>income (loss):   |                        |                        |                                  |                        |   |              |
| Net loss  |                        |                        |                                  | (4,741,216)            |   | (4,741,216)  |
| Realized gain on<br>available-for-sale<br>securities                                  |                        |                        |                                  |                        | (2,018)   | (2,018)      |
| Total comprehensive<br>loss   |                        |                        |                                  |                        |   | (4,743,234)  |
| Balance, December 31,<br>2006   | 59,624,379             | 59,624                 | 135,330,668                      | (135,688,319)          |   | (298,027)    |
| Cancelled restricted<br>stock that did not vest                                       | (130,000)              | (130)                  |                                  |                        |   | (130)        |
| Issued stock to 401(k)<br>plan at \$0.28  | 107,313                | 108                    | 29,423                           |                        |   | 29,531       |
| Issued stock in<br>connection with stock<br>purchase agreement,<br>net of costs       | 7,588,338              | 7,588                  | 1,703,953                        |                        |   | 1,711,541    |
| Issued stock as fees to<br>an investment banking<br>firm                              | 50,000                 | 50                     | 11,950                           |                        |   | 12,000       |
| Effect of beneficial<br>conversion feature of   |                        |                        | 86,587                           |                        |   | 86,587       |

|  |  |  |           |             |             |
|--|--|--|-----------|-------------|-------------|
| convertible promissory note                            |  |  |           |             |             |
| Issued warrants to purchase common stock               |  |  | 175,719   |             | 175,719     |
| Repurchased warrants related to extinguishment of debt |  |  | (675,000) |             | (675,000)   |
| Stock compensation expense                             |  |  | 102,397   |             | 102,397     |
| Net loss   |  |  |           | (5,088,212) | (5,088,212) |

|                            |            |           |                |                  |                |
|----------------------------|------------|-----------|----------------|------------------|----------------|
| Balance, December 31, 2007 | 67,240,030 | \$ 67,240 | \$ 136,765,697 | \$ (140,776,531) | \$ (3,943,594) |
|----------------------------|------------|-----------|----------------|------------------|----------------|

See accompanying notes to consolidated financial statements.

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**Neoprobe Corporation and Subsidiaries**  
**Consolidated Statements of Cash Flows**

|   | <b>Years Ended December 31,</b> |                |
|---|---------------------------------|----------------|
|   | <b>2007</b>                     | <b>2006</b>    |
| Cash flows from operating activities:                                       |                                 |                |
| Net loss  | \$ (5,088,212)                  | \$ (4,741,216) |
| Adjustments to reconcile net loss to net cash used in operating activities: |                                 |                |
| Depreciation of property and equipment                                      | 171,713                         | 148,934        |
| Amortization of intangible assets   | 233,006                         | 262,802        |
| Loss on disposal and abandonment of assets                                  | 22,551                          | 39,031         |
| Amortization of debt discount and debt offering costs                       | 1,406,195                       | 808,916        |
| Provision for bad debts   | 1,000                           |                |
| Stock compensation expense  | 102,397                         | 221,584        |
| Loss on extinguishment of debt  | 859,955                         |                |
| Change in derivative liabilities  | 247,876                         |                |
| Other   | 29,400                          | 22,854         |
| Change in operating assets and liabilities:                                 |                                 |                |
| Accounts receivable   | (376,821)                       | (573,081)      |
| Inventory   | (166,838)                       | (428,202)      |
| Prepaid expenses and other assets   | 177,351                         | 408,918        |
| Accounts payable  | 109,797                         | 460,463        |
| Accrued liabilities and other liabilities                                   | 319,337                         | (284,213)      |
| Deferred revenue  | 686,089                         | 95,437         |
| <br>  |                                 |                |
| Net cash used in operating activities                                       | (1,265,204)                     | (3,557,773)    |
| <br>  |                                 |                |
| Cash flows from investing activities:                                       |                                 |                |
| Maturities of available-for-sale securities                                 |                                 | 1,531,000      |
| Purchases of property and equipment   | (41,274)                        | (144,022)      |
| Proceeds from sales of property and equipment                               |                                 | 4,097          |
| Patent and trademark costs  | (6,736)                         | (31,163)       |
| <br>  |                                 |                |
| Net cash (used in) provided by investing activities                         | (48,010)                        | 1,359,912      |
| <br>  |                                 |                |
| Cash flows from financing activities:                                       |                                 |                |
| Proceeds from issuance of common stock                                      | 1,900,000                       | 50,000         |
| Payment of stock offering costs   | (22,674)                        | (35,570)       |
| Proceeds from notes payable   | 8,000,000                       |                |
| Payment of debt issuance costs  | (565,004)                       |                |
| Payment of notes payable  | (8,271,702)                     | (235,330)      |
| Payments under capital leases   | (14,841)                        | (19,530)       |
| Payment for repurchase of warrants  | (675,000)                       |                |
| <br>  |                                 |                |
| Net cash provided by (used in) financing activities                         | 350,779                         | (240,430)      |

|                         |              |              |
|-------------------------|--------------|--------------|
| Net decrease in cash    | (962,435)    | (2,438,291)  |
| Cash, beginning of year | 2,502,655    | 4,940,946    |
| Cash, end of year       | \$ 1,540,220 | \$ 2,502,655 |

See accompanying notes to consolidated financial statements.

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### Notes to the Consolidated Financial Statements

#### 1. Organization and Summary of Significant Accounting Policies:

- a. Organization and Nature of Operations:** Neoprobe Corporation (Neoprobe, the company, or we), a Delaware corporation, is engaged in the development and commercialization of innovative surgical and diagnostic products that enhance patient care by meeting the critical decision making needs of physicians. We currently manufacture two lines of medical devices: the first is a line of gamma radiation detection equipment used in the application of sentinel lymph node biopsy (SLNB), and the second is a line of blood flow monitoring devices for a variety of diagnostic and surgical applications.

Our gamma detection device products are marketed throughout most of the world through a distribution arrangement with Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company. For the years ended December 31, 2007 and 2006, 91% and 84% of net sales, respectively, were made to EES. The loss of this customer would have a significant adverse effect on our operating results.

Our blood flow measurement device product line is in the early stages of commercialization. Our activity with this product line was initiated with our acquisition of Cardiosonix Ltd. (Cardiosonix, formerly Biosonix Ltd.) on December 31, 2001.

We also have developmental and/or intellectual property rights related to two drugs that might be used in connection with gamma detection devices in cancer surgeries. The first, Lymphoseek<sup>®</sup>, is intended to be used in determining the spread of certain solid tumor cancers into the lymphatic system. The second, RIGScan<sup>®</sup> CR, is intended to be used to help surgeons locate cancerous or disease involved tissue during colorectal cancer surgeries. Both of these drug products are still in development and must be cleared for marketing by the appropriate regulatory bodies before they can be sold in any markets.

In addition, in January 2005 we formed a new corporation, Cira Biosciences, Inc. (Cira Bio), to explore the development of patient-specific cellular therapies that have shown positive patient responses in a variety of clinical settings. Cira Bio is combining our activated cellular therapy (ACT) technology for patient-specific oncology treatment with similar technology licensed from Cira LLC, a privately held company, for treating viral and autoimmune diseases. Neoprobe owns approximately 90% of the outstanding shares of Cira Bio with the remaining shares being held by the principals of Cira LLC. During the third quarter of 2007, we executed an option agreement with Cira Ltd., the sole minority shareholder in Cira Bio, whereby Neoprobe may acquire Cira Ltd.'s 10% interest in Cira Bio for \$250,000. The option to acquire Cira Ltd.'s interest in Cira Bio expires June 30, 2008.

- b. Principles of Consolidation:** Our consolidated financial statements include the accounts of Neoprobe, our wholly-owned subsidiary, Cardiosonix, and our majority-owned subsidiary, Cira Bio. All significant inter-company accounts were eliminated in consolidation.
- c. 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 disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.
- d. Fair Value of Financial Instruments:** 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) 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 December 31, 2007 and 2006, the carrying values of these instruments approximate fair value.
- (3) Note payable to CEO: The carrying value of our debt is presented as the face amount of the notes less the unamortized discounts related to the value of the beneficial conversion features and the initial estimated fair value of the warrants to purchase common stock issued in connection with the notes. At December 31, 2007 and 2006, the carrying value of the notes payable to our CEO approximates fair value.
- (4) Note payable to outside investors: The carrying value of our debt at December 31, 2007 is presented as the face amount of the notes less the unamortized discounts related to initial fair value of the conversion option and put options embedded in the note and the warrants to purchase common stock issued in connection with the notes. The carrying value of our debt at December 31, 2006 is presented as the face amount of the notes less the unamortized discounts related to the value of the beneficial conversion features and the initial estimated fair value of the warrants to purchase common stock issued in connection with the notes. At December 31, 2007 and 2006, the carrying value of the notes payable to outside investors approximates fair value.
- e. **Cash and Cash Equivalents:** There were no cash equivalents at December 31, 2007 or 2006. No cash was restricted as of December 31, 2007 or 2006.
- f. **Inventory:** All components of inventory are valued at the lower of cost (first-in, first-out) or market. We adjust inventory to market value when the net realizable value is lower than the carrying cost of the inventory. Market value is determined based on recent sales activity and margins achieved. During 2007 and 2006, we wrote off \$142,000 and \$129,000, respectively, of excess and obsolete materials, primarily due to design changes to our Quantix® product line.

We capitalize certain inventory costs associated with our Lymphoseek product prior to regulatory approval and product launch, based on management's judgment of probable future commercial use and net realizable value. 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 2007 and 2006, we capitalized \$150,000 and \$48,000, respectively, in inventory costs associated with our Lymphoseek product.

The components of net inventory at December 31, 2007 and 2006 are as follows:

|                               | <b>2007</b>         | <b>2006</b>         |
|-------------------------------|---------------------|---------------------|
| Materials and component parts | \$ 471,753          | \$ 522,225          |
| Work-in-process               | 151,741             | 167,188             |
| Finished goods                | 613,909             | 464,963             |
|                               | <b>\$ 1,237,403</b> | <b>\$ 1,154,376</b> |

- g. **Property and Equipment:** Property and equipment are stated at cost. Property and equipment under capital leases are stated at the present value of minimum lease payments. Depreciation is computed using the straight-line method over the estimated useful lives of the depreciable assets ranging from 2 to 7 years, and includes amortization related to equipment under capital leases. Maintenance and repairs are charged to

expense as incurred, while renewals and improvements are capitalized. Property and equipment includes \$57,000 and \$78,000 of equipment under

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capital leases with accumulated amortization of \$47,000 and \$53,000 at December 31, 2007 and 2006, respectively. During 2007 and 2006, we recorded losses of \$21,000 and \$2,000, respectively, on the disposal of property and equipment.

The major classes of property and equipment are as follows:

|   | <b>Useful<br/>Life</b>        | <b>2007</b>         | <b>2006</b>         |
|---|-------------------------------|---------------------|---------------------|
| Production machinery and equipment  | 5 years                       | \$ 720,225          | \$ 1,107,278        |
| Other machinery and equipment, primarily research equipment,<br>loaners and computers | 2 5 years                     | 655,609             | 598,555             |
| Furniture and fixtures  | 7 years                       | 340,007             | 336,537             |
| Leasehold improvements  | Life of<br>Lease <sup>1</sup> | 74,682              | 74,682              |
| Software  | 3 years                       | 127,820             | 120,998             |
|   |                               | <b>\$ 1,918,343</b> | <b>\$ 2,238,050</b> |

<sup>1</sup> We amortize leasehold improvements over the life of the lease, which in all cases is shorter than the estimated useful life of the asset.

- h. Intangible Assets:** Intangible assets consist primarily of patents and other acquired intangible assets. Intangible assets are stated at cost, less accumulated amortization. Patent costs are amortized using the straight-line method over the estimated useful lives of the patents of 5 to 15 years. Patent application costs are deferred pending the outcome of patent applications. Costs associated with unsuccessful patent applications and abandoned intellectual property are expensed when determined to have no recoverable value. Acquired technology costs are amortized using the straight-line method over the estimated useful life of seven years. We evaluate the potential alternative uses of all intangible assets, as well as the recoverability of the carrying values of intangible assets on a recurring basis.

The major classes of intangible assets are as follows:

|                        | <b>Wtd<br/>Avg<br/>Life</b> | <b>December 31, 2007</b>             |                                     | <b>December 31, 2006</b>             |                                     |
|------------------------|-----------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
|                        |                             | <b>Gross<br/>Carrying<br/>Amount</b> | <b>Accumulated<br/>Amortization</b> | <b>Gross<br/>Carrying<br/>Amount</b> | <b>Accumulated<br/>Amortization</b> |
| Patents and trademarks | 8.8<br>yrs                  | \$ 3,016,783                         | \$ 1,449,350                        | \$ 3,131,391                         | \$ 1,370,291                        |
| Acquired technology    | 1.0<br>yrs                  | 237,271                              | 203,562                             | 237,271                              | 169,854                             |

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Total \$ 3,254,054 \$ 1,652,912 \$ 3,368,662 \$ 1,540,145

During 2007 and 2006, we recorded \$233,000 and \$263,000, respectively, of intangible asset amortization in general and administrative expenses. During 2006, \$2,000 of the total amortization was related to the abandonment of gamma detection patents and patent applications that were deemed no longer recoverable or part of our ongoing business.

The estimated future amortization expenses for the next five fiscal years are as follows:

|                               | <b>Estimated<br/>Amortization<br/>Expense</b> |
|-------------------------------|---|
| For the year ended 12/31/2008 | \$212,148                                     |
| For the year ended 12/31/2009 | 170,136                                       |
| For the year ended 12/31/2010 | 169,414                                       |
| For the year ended 12/31/2011 | 168,310                                       |
| For the year ended 12/31/2012 | 168,267                                       |

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**i. Impairment or Disposal of Long-Lived Assets:** We account for long-lived assets in accordance with the provisions of Statement of Financial Accounting Standards (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. 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 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.

**j. Other Assets:**

Other assets consist primarily of deferred debt issuance costs. We defer costs associated with the issuance of notes payable and amortize those costs over the period of the notes using the effective interest method. In 2007, we incurred \$565,000 of debt issuance costs related to notes payable and expensed \$209,000 of deferred debt issuance costs related to debt refinancing activities. Other assets include deferred debt issuance costs of \$496,000 and \$509,000 at December 31, 2007 and 2006, respectively. See Note 6.

**k. Deferred Revenue:**

Deferred revenue as of December 31, 2007 consists primarily of \$500,000 in non-refundable license fees and reimbursement of past research and development expenses which EES paid us as consideration for extending our distribution agreement with them. We intend to recognize the \$500,000 payment as license revenue on a straight-line basis over the extended term of the agreement, or January 2009 through December 2013. In addition, deferred revenue as of December 31, 2007 and 2006 includes revenues from the sale of extended warranties covering our medical devices over periods of one to four years. We recognize revenue from extended warranty sales on a pro-rata basis over the period covered by the extended warranty.

**l. Derivatives:**

We account for derivatives 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. Derivative instruments embedded in contracts, to the extent not already a free-standing contract, are required to be bifurcated from the debt instrument and accounted for separately. All derivatives are recorded on the consolidated balance sheet at fair value. See Note 6.

**m. Revenue Recognition:**

(1) **Product Sales:** We derive revenues primarily from sales of our medical devices. 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 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 generally have no right to return products purchased in the ordinary course of business.

Sales prices on gamma detection products sold to EES 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, subject to a minimum (i.e., floor) price. To the extent that we can reasonably estimate the end customer prices received by EES, we record sales to EES based upon these estimates. To the extent

that we are not able to

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reasonably estimate end customer sales prices related to certain products sold to EES, we record revenue related to these product sales at the floor price provided for under our distribution agreement with EES.

We recognize revenue related to the sales of products to be used for demonstration units when products are shipped and the earnings process has been completed. Our distribution agreements do not permit return of purchased demonstration units in the ordinary course of business nor do we have any performance obligations other than normal product warranty obligations. To the extent that the earnings process has not been completed, revenue is deferred. To the extent we enter into multiple-element arrangements, we allocate revenue based on the relative fair value of the elements.

- (2) **Extended Warranty Revenue:** We derive revenues from the sale of extended warranties covering our medical devices over periods of one to four years. We recognize revenue from extended warranty sales on a pro-rata basis over the period covered by the extended warranty. Expenses related to the extended warranty are recorded when incurred.
- (3) **Service Revenue:** We derive revenues from the repair and service of our medical devices that are in use beyond the term of the original warranty and that are not covered by an extended warranty. We recognize revenue from repair and service activities once the activities are complete and the repaired or serviced device has been shipped back to the customer.
- n. **Research and Development Costs:** All costs related to research and development are expensed as incurred.
- o. **Stock-Based Compensation:** At December 31, 2007, 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 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 awards may be granted to our consultants and agents. Total shares authorized under each plan are 2 million shares, 1.5 million shares and 5 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 us.

Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment*, which is a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 123(R) supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees*, and amends SFAS No. 95, *Statement of Cash Flows*. Generally, the approach in SFAS No. 123(R) is similar to the approach described in SFAS No. 123. However, 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.

We are applying the modified prospective method for recognizing the expense over the remaining vesting period for awards that were outstanding but unvested as of January 1, 2006. Under the modified prospective method, the adoption of SFAS No. 123(R) applies to new awards and to awards modified, repurchased, or cancelled after December 31, 2005, as well as to the unvested portion of awards outstanding as of January 1, 2006.



Compensation cost arising from stock-based awards is recognized as expense using the straight-line method over the vesting period. As of December 31, 2007, there was approximately \$149,000 of total unrecognized compensation cost related to unvested stock-based awards, which we expect to recognize over remaining weighted average vesting terms of 0.9 years. For the years ended December 31, 2007 and 2006, our total stock-based compensation expense was approximately \$102,000 and \$222,000, respectively. We have not recorded any income tax benefit related to stock-based compensation for the years ended December 31, 2007 and 2006.

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. The assumptions used for the years ended December 31, 2007 and 2006 are noted in the following table:

|                     | <b>2007</b> | <b>2006</b> |
|---------------------|-------------|-------------|
| Expected term       | 5.8 years   | 5.9 years   |
| Expected volatility | 103%        | 105%        |
| Expected dividends  |             |             |
| Risk-free rate      | 4.6%        | 4.7%        |

A summary of stock option activity under our stock option plans as of December 31, 2007, and changes during the year then ended is presented below:

|                                    | <b>Year Ended December 31, 2007</b> |  |   |  |
|------------------------------------|-------------------------------------|--|---|--|
|                                    | <b>Number<br/>of<br/>Options</b>    | <b>Weighted<br/>Average<br/>Exercise<br/>Price</b> | <b>Weighted<br/>Average<br/>Remaining<br/>Contractua<br/>l Life</b> | <b>Aggregate<br/>Intrinsic<br/>Value</b> |
| Outstanding at beginning of period | 5,975,473                           | \$ 0.42  |   |  |
| Granted                            | 40,000                              | \$ 0.35  |   |  |
| Exercised                          |                                     |  |   |  |
| Forfeited                          | (116,667)                           | \$ 0.32  |   |  |
| Expired                            | (403,333)                           | \$ 0.42  |   |  |
| Outstanding at end of period       | 5,495,473                           | \$ 0.42  | 5.5 years   |  |
| Exercisable at end of period       | 5,149,473                           | \$ 0.43  | 5.2 years   |  |

The weighted average grant-date fair value of options granted in 2007 and 2006 was \$0.28 and \$0.19, respectively. No options were exercised during 2007 or 2006.

A summary of the status of our restricted stock as of December 31, 2007, and changes during the year then ended is presented below:

|                                    | <b>Year Ended<br/>December 31, 2007</b> |   |
|------------------------------------|---|---|
|                                    | <b>Number<br/>of<br/>Shares</b>         | <b>Weighted<br/>Average<br/>Grant-Date<br/>Fair Value</b> |
| Outstanding at beginning of period | 130,000                                 | \$ 7.84   |
| Granted                            |   |   |
| Exercised                          |   |   |
| Forfeited                          |   |   |
| Expired                            | (130,000)                               | \$ 7.84   |

Outstanding at end of period

During 2007, all of our outstanding restricted shares were effectively cancelled due to failure to vest under the terms of issuance of these shares. Restricted shares, if any, generally vest on a specific event or achievement of goals as defined in the grant agreements. As a result, we have not recorded any compensation expense related to past grants of restricted stock due to the inability to assess the probability of the vesting event. See Note 15(a).

- p. Income Taxes:** Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Due to the uncertainty surrounding the realization of the deferred tax assets in future tax returns, all of the deferred tax assets have been fully offset by a valuation allowance at December 31, 2007 and 2006.

In July 2006, the Financial Accounting Standards Board (FASB) issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes - An Interpretation of FASB Statement No. 109* (FIN 48). We adopted the provisions of FIN 48 on January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in the financial statements in accordance with FASB Statement No. 109. 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 December 31, 2007. Should the Company need to accrue interest or penalties on uncertain tax positions, it would recognize the interest as interest expense and the penalties as a selling, general and administrative expense.

**q.**

**Recent Accounting Developments:** In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (SFAS No. 157). 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

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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 defers 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 do not expect the adoption of SFAS No. 157 to have a material impact on our consolidated results of operations or financial condition.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an Amendment of FASB Statement No. 115* (SFAS No. 159). SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value at specified election dates. Most of the provisions of SFAS No. 159 apply only to entities that elect the fair value option. However, the amendment to FASB Statement No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, applies to all entities with available-for-sale and trading securities. The fair value option established by SFAS No. 159 permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. The fair value option may be applied instrument by instrument, with a few exceptions, such as investments otherwise accounted for by the equity method, is irrevocable (unless a new election date occurs), and is applied only to entire instruments and not to portions of instruments. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. Early adoption was permitted as of the beginning of a fiscal year that began on or before November 15, 2007, provided the entity also elected to apply the provisions of SFAS No. 157, *Fair Value Measurements*. We plan to adopt SFAS No. 159 as required on January 1, 2008; however, we do not plan to elect to measure any of our currently outstanding financial instruments using the fair value option outlined in SFAS No. 159. As such, we do not expect the adoption of SFAS No. 159 to have a material impact on our consolidated results of operations or financial condition.

In June 2007, the FASB ratified the consensus reached by the Emerging Issues Task Force (EITF) on Issue 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities* (EITF 07-3). The scope of EITF 07-3 is focused on the accounting for non-refundable advance payments for goods that will be used or services that will be performed in future research and development activities. The FASB concluded that these types of payments should be deferred and capitalized until the goods have been delivered or the related services have been rendered. EITF 07-3 is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. We do not expect EITF 07-3 to have a material effect on our consolidated results of operations or financial condition.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* (SFAS No. 141(R)). 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 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 is required to be 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 after we adopt SFAS No. 141(R), 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). SFAS No. 160 amends ARB No. 51 to establish accounting and reporting standards for the noncontrolling

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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 is required to be adopted by Neoprobe beginning January 1, 2009. Earlier adoption is prohibited. SFAS No. 160 shall be applied prospectively as of the beginning of the fiscal year in which it is adopted, except for the presentation and disclosure requirements. The presentation and disclosure requirements shall be applied retrospectively for all periods presented. We do not expect the adoption of SFAS No. 160 to have a material effect on our consolidated results of operations or financial condition.

In December 2007, the FASB ratified the consensus reached by the EITF on EITF Issue 07-1, *Accounting for Collaborative Arrangements*. EITF 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. EITF 07-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years and should be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. We do not expect EITF 07-1 to have a material effect on our consolidated results of operations or financial condition.

## 2. Earnings Per Share:

Basic earnings (loss) per share is calculated using the weighted average number of common shares outstanding during the periods. Diluted earnings (loss) per share is calculated using the weighted average number of common shares outstanding during the periods, adjusted for the effects of convertible securities, options and warrants, if dilutive.

|   | Year Ended<br>December 31, 2007 |                                  | Year Ended<br>December 31, 2006 |                                  |
|---|---------------------------------|----------------------------------|---------------------------------|----------------------------------|
|   | Basic<br>Earnings<br>Per Share  | Diluted<br>Earnings<br>Per Share | Basic<br>Earnings<br>Per Share  | Diluted<br>Earnings<br>Per Share |
| Outstanding shares                                | 67,240,030                      | 67,240,030                       | 59,624,379                      | 59,624,379                       |
| Effect of weighting changes in outstanding shares | (4,318,539)                     | (4,318,539)                      | (907,786)                       | (907,786)                        |
| Contingently issuable shares                      |                                 |                                  | (130,000)                       | (130,000)                        |
| Adjusted shares                                   | 62,921,491                      | 62,921,491                       | 58,586,593                      | 58,586,593                       |

There is no difference in basic and diluted loss per share related to 2007 or 2006. The net loss per common share for these periods excludes the effects of 35,691,194 and 41,873,016, respectively, common shares issuable upon exercise of outstanding stock options and warrants into our common stock or upon the conversion of convertible debt since such inclusion would be anti-dilutive.

## 3. Accounts Receivable and Concentrations of Credit Risk:

Accounts receivable at December 31, 2007 and 2006, net of allowance for doubtful accounts of \$1,000 and \$0, respectively, consist of the following:

|       | 2007         | 2006         |
|-------|--------------|--------------|
| Trade | \$ 1,609,690 | \$ 1,243,114 |
| Other | 12,220       | 2,975        |

\$ 1,621,910

\$ 1,246,089

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At December 31, 2007 and 2006, approximately 94% and 86%, respectively, of net accounts receivable were due from EES. We do not believe we are exposed to significant credit risk related to EES based on the overall financial strength and credit worthiness of the customer and its parent company. We believe that we have adequately addressed other credit risks in estimating the allowance for doubtful accounts.

We estimate an allowance for doubtful accounts based on a review and assessment of specific accounts receivable and write off accounts when deemed uncollectible.

#### 4. Accrued Liabilities:

Accrued liabilities at December 31, 2007 and 2006 consist of the following:

|                               | <b>2007</b>       | <b>2006</b>       |
|-------------------------------|-------------------|-------------------|
| Contracted services and other | \$ 446,037        | \$ 401,224        |
| Compensation                  | 207,904           | 91,167            |
| Warranty reserve              | 115,395           | 44,858            |
| Inventory purchases           | 23,204            |                   |
| Interest                      | 9,409             | 6,966             |
|                               | <b>\$ 801,949</b> | <b>\$ 544,215</b> |

#### 5. 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. EES 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 years ended December 31, 2007 and 2006 is as follows:

|   | <b>2007</b> | <b>2006</b> |
|---|-------------|-------------|
| Warranty reserve at beginning of year                               | \$ 44,858   | \$ 41,185   |
| Provision for warranty claims and changes in reserve for warranties | 121,996     | 40,103      |
| Payments charged against the reserve                                | (51,459)    | (36,430)    |
| Warranty reserve at end of year                                     | \$ 115,395  | \$ 44,858   |

#### 6. Notes Payable:

In December 2004, we completed a private placement of four-year convertible promissory notes in an aggregate principal amount of \$8.1 million under a Securities Purchase Agreement with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and David C. Bupp, our President and CEO. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC (collectively, the Great Point Funds). The notes originally bore interest at 8% per annum and were due on December 13, 2008.

As part of the original transaction, we issued the investors 10,125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, expiring in December 2009. The fair value of the warrants issued to the investors was \$1,315,000 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 3.4%, volatility of 50% and no expected dividend rate. In connection with this



financing, we also issued 1,600,000 Series U warrants to purchase our common stock to the placement agents, containing substantially the same terms as the warrants issued to the investors. The fair value of the warrants issued to the placement agents was \$208,014 using the Black-Scholes option pricing model with the same assumptions used to determine the fair value of the warrants issued to the investors. The value of the beneficial conversion feature of the notes was estimated at \$1,315,000 based on the effective conversion price at the date of issuance. The fair value of the warrants issued to the investors and the value of the beneficial conversion feature were recorded as discounts on the note and were being amortized over the term of the notes using the effective interest method. The fair value of the warrants issued to the placement agents was recorded as a deferred debt issuance cost and was also being amortized over the term of the notes using the effective interest method.

In November 2006, we amended the Agreement and modified several of the key terms in the related notes. The modified notes bore interest at 12% per annum, payable on March 31, June 30, September 30 and December 31 of each year. The maturity of the notes was modified as follows: \$500,000 due January 8, 2007; \$1,250,000 due July 9, 2007; \$1,750,000 due January 7, 2008; \$2,000,000 due July 7, 2008 and the remaining \$2,600,000 due January 7, 2009. We were also required to make mandatory repayments of principal to the Great Point Funds under certain circumstances such as asset dispositions, partnering transactions and sales of equity. During 2007, we made \$625,000 of such mandatory repayments that were applied against future scheduled principal payments. In exchange for the increased interest rate and accelerated principal repayment schedule, the note holders eliminated the financial covenants under the original notes and eliminated certain conversion price adjustments from the original notes related to sales of equity securities by Neoprobe. In addition, Neoprobe was allowed to make optional prepayments to the Great Point Funds by giving them 10 business days notice during which time the note holders could decide to convert the notes into our common stock. The new notes remained freely convertible into shares of our common stock at a price of \$0.40 per share. We could force conversion of the notes prior to their stated maturity under certain circumstances. We treated the amendment to the Agreement as a modification for accounting purposes.

As a result of the November 2006 modification of the payment terms of the notes, the amortization of debt discount and issuance costs using the effective interest method was revised. During the third quarter of 2007, management determined that we had, from the date of the modification of the notes payable on November 30, 2006, through June 30, 2007, incorrectly applied the effective interest method in calculating the amortization of the debt discount and issuance costs related to the notes. As a result of the error in calculation, we recorded a total adjustment of \$286,000 in non-cash interest expense related to the seven months ended June 30, 2007 in our results of operations for the third quarter of 2007. We have determined that the net effect of this adjustment was not material, either quantitatively or qualitatively, to our results of operations and would not have resulted in changes to net loss per share, as reported, for the year ended December 31, 2006 or for the quarters ended March 31, 2007 and June 30, 2007. Recording the adjustment did not require amendment of the previously filed reports for the periods affected.

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 investors 500,000 Series V warrants to purchase our common stock at an exercise price of \$0.31 per share, expiring in July 2012. 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 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 and the value of the

beneficial conversion feature were recorded as discounts on the note. We incurred \$43,000 of costs related to completing the Bupp financing, which were recorded in other

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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 (the Montaur Purchase Agreement) 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) 6,000,000 Series W warrants to purchase our common stock at an exercise price of \$0.32 per share, expiring in December 2012 (the Series W warrants). Additionally, pursuant to the terms of the Montaur Purchase Agreement: (1) upon commencement of the Phase 3 clinical studies of Lymphoseek, we will issue to 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 five-year warrants 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 warrants), for an aggregate purchase price of \$3,000,000; and (2) upon completion of enrollment of 200 patients in the Phase 3 clinical studies of Lymphoseek, we will issue to Montaur 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock (the Preferred Stock) and five-year warrants 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 warrants, and hereinafter referred to collectively with the Series W warrants and Series X warrants as the Montaur warrants), also for an aggregate purchase price of \$3,000,000.

The Series A Note bears interest at 10% per annum and is partially convertible at the option of Montaur into common stock at a price of \$0.26 per share. Interest is payable monthly, in arrears, beginning February 2008 until the earlier of the maturity date or the date of conversion. At our discretion, we may pay the monthly interest payments in cash, common stock, or a combination of cash and common stock, subject to certain limitations set forth in the Series A Note. Upon issuance, the Series B Note will also bear interest at 10% per annum, and Montaur will have the right to convert the Series B Note into common stock at a price equal to the lesser of \$0.40 or the closing price of the common stock on the issuance date of the Series B Note. According to the provisions of the Certificate of Designations, Voting Powers, Preferences, Limitations, Restrictions, and Relative Rights of Series A 8% Cumulative Convertible Preferred Stock (the Certificate of Designations), Montaur may convert all or any portion of the shares of Preferred Stock into a number of shares of common stock equal to the quotient of: (1) the Liquidation Preference Amount of the shares of Preferred Stock by (2) the Conversion Price then in effect for the Preferred Stock. Per the Certificate of Designations, the Liquidation Preference Amount is equal to \$1,000 per share of Preferred Stock, and the Conversion Price is equal to the lesser of \$0.50 or the closing price of the common stock on the issuance date of the Preferred Stock, subject to adjustment as described in the Certificate of Designations.

Under the terms of a Registration Rights Agreement, dated December 26, 2007, between Neoprobe and Montaur (the Rights Agreement), we agreed to file a registration statement with the Securities and Exchange Commission registering the shares of common stock underlying the Notes, the Preferred Stock and the Warrants, no later than 60 days following the closing, which deadline has since been extended to April 15, 2008. Additionally, in connection with the Purchase Agreement, we entered into: (1) a Security Agreement, dated December 26, 2007, between Neoprobe and Montaur (the Montaur Security Agreement); and (2) a Patent, Trademark, and Copyright Security Agreement, dated December 26, 2007, by and among Neoprobe, Cardiosonix Ltd., Cira Biosciences, Inc. and Montaur (the IP Security Agreement), pursuant to which we have granted Montaur a security interest in all of our property and assets and our subsidiaries to secure our obligations under the Montaur Notes and all other transaction agreements. The Security Agreement and IP Security Agreement contain covenants, remedies and other provisions as are customary for agreements of such type.

In accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, the conversion

option and two put options are considered derivative instruments and are required to be bifurcated from the debt instrument and accounted for separately. In addition, in accordance with SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of both Liabilities*

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*and Equity*, the Series W warrants are 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 note. 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 warrants 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. Changes in the fair value of the derivative liabilities are recorded in the consolidated statement of operations. As of December 31, 2007, the derivative liabilities had a fair value of \$1.60 and \$1.25 million for the conversion and put options and the warrants, respectively. Because the value of our stock increased between the closing date of the financing and December 31, 2007, our year end, the effect of marking the derivative liabilities to market at December 31, 2007 resulted in an increase in the estimated fair value of the derivative liabilities of \$248,000 which was recorded as non-cash expense during the fourth quarter of 2007. See Note 15(b).

The aggregate fair value of the conversion option, the put options, and the warrants of \$2.6 million was recorded as a discount on the note and is being amortized over the term of the note using the effective interest method. During 2007, we recorded interest expense of \$15,000 related to the amortization of the debt discount. We incurred \$497,000 of costs related to completing the 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. During 2007, we recorded interest expense of \$1,000 related to the amortization of the deferred financing costs. At December 31, 2007, \$9,000 of accrued interest related to the notes was included in accrued liabilities on the consolidated balance sheet.

In connection with the Montaur Purchase Agreement, Montaur requested that the term of the \$1.0 million Bupp Note be extended 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 500,000 Series V warrants to purchase 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 fair value of the warrants and the value of the beneficial conversion feature and the remaining unamortized deferred financing costs associated with the original note were written off as a loss on extinguishment of debt.

We applied \$5,725,000 from the proceeds of our issuance of the Series A Note and Series W warrants to the complete and total satisfaction of our outstanding obligations under the Replacement Series A Convertible Promissory Notes issued to the Great Point Funds and David C. Bupp as of November 30, 2006, pursuant to the Securities Purchase Agreement, dated as of December 13, 2004, by and among Neoprobe, the Great Point Funds and Mr. Bupp, as amended by the Amendment dated as of November 30, 2006 (the Amended GPP Purchase Agreement). We treated the early repayment of the notes as an extinguishment of debt for accounting purposes. As such, the remaining discount resulting from the fair value of the warrants and the value of the beneficial conversion feature associated with the original notes was written off as a loss on extinguishment of debt. We applied an additional \$675,000 from the proceeds of our issuance of the Series A Note and Series W warrants to

the redemption of 10,000,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to the Great Point Funds pursuant to the Amended  
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GPP Purchase Agreement. In connection with the consummation of the Montaur Purchase Agreement and amendment of the Bupp Purchase Agreement, Mr. Bupp agreed to the cancellation of 125,000 Series T warrants to purchase our common stock at an exercise price of \$0.46 per share, issued to Mr. Bupp pursuant to the Amended GPP Purchase Agreement.

#### 7. Income Taxes:

As of December 31, 2007 and 2006, our deferred tax assets in the U.S. were approximately \$40.1 million and \$39.6 million, respectively. The components of our deferred tax assets, pursuant to SFAS No. 109, *Accounting for Income Taxes*, are summarized as follows:

|  | <b>As of December 31,</b> |               |
|--|---------------------------|---------------|
|  | <b>2007</b>               | <b>2006</b>   |
| Deferred tax assets:                           |                           |               |
| Federal net operating loss carryforwards       | \$ 32,428,173             | \$ 32,227,107 |
| State net operating loss carryforwards         | 2,229,635                 | 2,273,948     |
| R&D credit carryforwards                       | 4,906,697                 | 4,722,457     |
| Temporary differences                          | 552,981                   | 354,340       |
| Deferred tax assets before valuation allowance | 40,117,486                | 39,577,852    |
| Valuation allowance                            | (40,117,486)              | (39,577,852)  |
| Net deferred tax assets                        | \$                        | \$            |

SFAS No. 109 requires a valuation allowance against deferred tax assets if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets may not be realized. Due to the uncertainty surrounding the realization of these deferred tax assets in future tax returns, all of the deferred tax assets have been fully offset by a valuation allowance at December 31, 2007 and 2006.

As of December 31, 2007 and 2006, Cardiosonix had deferred tax assets in Israel of approximately \$2 million, primarily related to net operating loss carryforwards available to offset future taxable income, if any. Under current Israeli tax law, net operating loss carryforwards do not expire. Due to the uncertainty surrounding the realization of these deferred tax assets in future tax returns, all of the deferred tax assets have been fully offset by a valuation allowance at December 31, 2007 and 2006. Since a valuation allowance was recognized for the deferred tax asset for Cardiosonix deductible temporary differences and operating loss carryforwards at the acquisition date, the tax benefits for those items that are first recognized (i.e., by elimination of the valuation allowance) in financial statements after the acquisition date shall be applied (a) first to reduce to zero other noncurrent intangible assets related to the acquisition and (b) second to reduce income tax expense.

Under Sections 382 and 383 of the Internal Revenue Code (IRC) of 1986, as amended, the utilization of U.S. net operating loss and tax credit carryforwards may be limited under the change in stock ownership rules of the IRC. As a result of ownership changes as defined by Sections 382 and 383, which have occurred at various points in our history, we believe utilization of our net operating loss carryforwards and tax credit carryforwards will likely be significantly limited under certain circumstances.

Reconciliations between the statutory federal income tax rate and our effective tax rate are as follows:

|                                    | <b>Years Ended December 31,</b> |          |                |          |
|------------------------------------|---------------------------------|----------|----------------|----------|
|                                    | <b>2007</b>                     |          | <b>2006</b>    |          |
|                                    | <b>Amount</b>                   | <b>%</b> | <b>Amount</b>  | <b>%</b> |
| Benefit at statutory rate          | \$ (1,729,992)                  | (34.0%)  | \$ (1,612,013) | (34.0%)  |
| Adjustments to valuation allowance | 1,502,950                       | 29.5%    | 1,462,443      | 30.8%    |
| Other                              | 227,042                         | 4.5%     | 149,570        | 3.2%     |
| <br>                               |                                 |          |                |          |
| Benefit per financial statements   | \$                              |          | \$             |          |

Deferred tax assets of \$1.0 million related to net operating loss carryforwards and \$133,000 related to R&D credit carryforwards expired during 2007.

#### 8. Equity:

- a. **Stock Warrants:** At December 31, 2007, there are 13.9 million warrants outstanding to purchase our common stock. The warrants are exercisable at prices ranging from \$0.13 to \$0.50 per share with a weighted average exercise price per share of \$0.31.

The following table summarizes information about our outstanding warrants at December 31, 2007:

|          | <b>Exercise</b> | <b>Number of</b> | <b>Expiration</b> |
|----------|-----------------|------------------|-------------------|
|          | <b>Price</b>    | <b>Warrants</b>  | <b>Date</b>       |
| Series Q | \$0.13          | 875,000          | April 2008        |
| Series Q | \$0.50          | 375,000          | March 2009        |
| Series R | \$0.28          | 2,808,898        | October 2008      |
| Series S | \$0.28          | 1,195,478        | October 2008      |
|          |                 |                  | December          |
| Series U | \$0.44          | 1,600,000        | 2009              |
| Series V | \$0.31          | 500,000          | July 2012         |
|          |                 |                  | December          |
| Series V | \$0.32          | 500,000          | 2012              |
|          |                 |                  | December          |
| Series W | \$0.32          | 6,000,000        | 2012              |
|          | \$0.31          | 13,854,376       |                   |

In April 2003, we completed bridge loans with our President and CEO, David Bupp, and an outside investor. In connection with these loans, we issued a total of 875,000 Series Q warrants to purchase our common stock at an exercise price of \$0.13 per share, expiring in April 2008. In March 2004, at the request of our Board of Directors, Mr. Bupp agreed to extend the due date of his loan. In exchange for extending the due date of his loan, we issued Mr. Bupp an additional 375,000 Series Q warrants to purchase our common stock at an exercise price of \$0.50 per share, expiring in March 2009. All 1,250,000 Series Q warrants related to the bridge loans remain outstanding at December 31, 2007. See Note 15(c).

In November 2003, we executed common stock purchase agreements with certain investors. In connection with these agreements, we issued the purchasers 6,086,959 Series R warrants to purchase our common stock at an



exercise price of \$0.28 per share, expiring in October 2008, and issued the placement agents 1,354,348 Series S warrants to purchase our common stock on similar terms. No Series R or Series S warrants were exercised during 2007 or 2006. At December 31, 2007, 2,808,898 Series R and 1,195,478 Series S warrants remain outstanding. See Note 15(c). See Note 6 for a discussion of Series U, V and W warrants.

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- b. Common Stock Purchase Agreement:** In December 2006, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion). A registration statement registering for resale up to 12,000,000 shares of our common stock became effective on December 28, 2006. We have authorized up to 12,000,000 shares of our common stock for sale to Fusion under the agreement. Under the terms of the agreement, in December 2006, we issued 720,000 shares of common stock as an initial commitment fee. We are also required to issue to Fusion up to an additional 720,000 shares of our common stock as an additional commitment fee in connection with future purchases made by Fusion. The additional 720,000 shares will be issued pro rata as we sell our common stock to Fusion under the agreement, resulting in a total commitment fee of 1,440,000 shares of our common stock if the entire \$6.0 million in value of stock is sold. Under the terms of the agreement, generally we have the right but not the obligation from time to time to sell our shares to Fusion in amounts between \$50,000 and \$1.0 million depending on certain conditions set forth in the agreement. We have the right to control the timing and amount of any sales of our shares to Fusion. The price of shares sold to Fusion will generally be based on market prices for purchases that are not subject to the floor price of \$0.20 per share. The common stock purchase agreement may be terminated by us at any time at our discretion without any cost to us. During 2007, we sold a total of 7,360,338 shares of our common stock under the agreement, realized gross proceeds of \$1,900,000 from such sales, and issued Fusion 228,000 shares of our common stock as additional commitment fees related to such sales. During 2006, we sold a total of 208,333 shares of our common stock under the agreement, realized gross proceeds of \$50,000 from such sales, and issued Fusion 6,000 shares of our common stock as additional commitment fees related to such sales.
- c. Common Stock Reserved:** As of December 31, 2007, we have reserved 35,691,194 shares of authorized common stock for the exercise of all outstanding options, warrants, and convertible debt.

**9. Segments and Subsidiary Information:**

- a. Segments:** 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 gamma detection instruments currently used primarily in the application of SLNB, 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><br><b>2007</b>  | <b>Gamma<br/>Detection<br/>Devices</b> | <b>Blood<br/>Flow<br/>Devices</b> | <b>Drug and<br/>Therapy<br/>Products</b> | <b>Corporate</b> | <b>Total</b> |
|--|--|-----------------------------------|--|------------------|--------------|
| Net sales:   |  |                                   |  |                  |              |
| United States <sup>1</sup>   | \$6,577                                | \$ 166                            | \$                                       | \$               | \$ 6,743     |
| International  | 197                                    | 185                               |  |                  | 382          |
| Research and development expenses  | 680                                    | 359                               | 1,827                                    |                  | 2,866        |
| Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup> |  |                                   |  | 2,432            | 2,432        |
| Depreciation and amortization  | 99                                     | 262                               |  | 44               | 405          |
| Income (loss) from operations <sup>3</sup>   | 3,093                                  | (552)                             | (1,827)                                  | (2,477)          | (1,763)      |
| Other income (expense) <sup>4</sup>  |  |                                   |  | (3,325)          | (3,325)      |
| Total assets, net of depreciation and amortization:  |  |                                   |  |                  |              |
| United States operations   | 2,280                                  | 703                               | 186                                      | 2,334            | 5,503        |
| Israeli operations (Cardiosonix Ltd.)  |  | 1,560                             |  |                  | 1,560        |
| Capital expenditures   | 16                                     | 9                                 |  | 16               | 41           |
| <b>2006</b>  |  |                                   |  |                  |              |
| Net sales  |  |                                   |  |                  |              |
| United States <sup>1</sup>   | \$5,214                                | \$ 80                             | \$                                       | \$               | \$ 5,294     |
| International  | 231                                    | 526                               |  |                  | 757          |
| Research and development expenses  | 952                                    | 708                               | 2,143                                    |                  | 3,803        |
| Selling, general and administrative expenses, excluding depreciation and amortization <sup>2</sup> |  |                                   |  | 2,664            | 2,664        |
| Depreciation and amortization  | 103                                    | 250                               |  | 59               | 412          |
| Income (loss) from operations <sup>3</sup>   | 2,237                                  | (831)                             | (2,143)                                  | (2,723)          | (3,460)      |
| Other income (expense) <sup>4</sup>  |  |                                   |  | (1,281)          | (1,281)      |
| Total assets, net of depreciation and amortization:  |  |                                   |  |                  |              |
| United States operations   | 1,961                                  | 612                               | 57                                       | 3,510            | 6,140        |
| Israeli operations (Cardiosonix Ltd.)  |  | 1,894                             |  |                  | 1,894        |
| Capital expenditures   | 102                                    | 7                                 |  | 35               | 144          |

<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> Selling, general and

administrative costs, 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.

3. Income (loss) from operations does not reflect the allocation of selling, general and administrative costs to our individual reportable segments.

4. Amounts consist primarily of interest income and interest expense which are currently not allocated to our individual reportable segments.

**b. Subsidiary:** On December 31, 2001, we acquired 100 percent of the outstanding common shares of Cardiosonix, an Israeli company. We accounted for the acquisition under SFAS No. 141, *Business Combinations*, and certain provisions of SFAS No. 142, *Goodwill and Other Intangible Assets*. The results of Cardiosonix operations have been included in our consolidated results from the date of acquisition.

As a part of the acquisition, we also entered into a royalty agreement with the three founders of Cardiosonix. Under the terms of the royalty agreement, which expired December 31, 2006, we were obligated to pay the founders an aggregate one percent royalty on up to \$120 million in net revenue generated by the sale of Cardiosonix blood flow products through 2006. Through December 2006, we paid the founders a total of \$14,000 in royalties related to sales of Cardiosonix products. No founders royalties were accrued as of December 31, 2007.



## 10. Agreements:

- a. Supply Agreements:** In December 1997, we entered into an exclusive supply agreement with eV Products (eV), a division of II-VI Incorporated, for the supply of certain crystals and associated electronics to be used in the manufacture of our proprietary line of hand-held gamma detection instruments. The original term of the agreement expired on December 31, 2002 and was automatically extended during 2002 through December 31, 2005; however, the agreement was no longer exclusive throughout the extended period. Total purchases were \$811,000 and \$770,000 for the years ended December 31, 2007 and 2006, respectively. We have issued purchase orders under the same terms as the original agreement for \$328,000 of crystal modules for delivery of product through September 2008.

In February 2004, we entered into a product supply agreement with TriVirix International (TriVirix) for the manufacture of the neo2000 control unit, 14mm probe, Bluetooth® technology wireless probes, 11mm laparoscopic probe, and Quantix/OR™ control unit. The initial term of the agreement expired in January 2007, but was automatically extended through January 2008, and may continue to be automatically extended for successive one-year periods. Either party has the right to terminate the agreement at any time upon one hundred eighty (180) days prior written notice, or may terminate the agreement upon a material breach or repeated non-material breaches by the other. Total purchases under the product supply agreement were \$1.2 million and \$1.1 million for the years ended December 31, 2007 and 2006, respectively. We have issued purchase orders under the agreement for \$1.3 million of our products for delivery through December 2009.

- b. Marketing and Distribution Agreement:** During 1999, we entered into a distribution agreement with EES covering our gamma detection devices used in SLNB. The initial five-year term expired December 31, 2004, with options to extend for two successive two-year terms. In March 2006, EES exercised its option for a second two-year term extension of the distribution agreement covering our gamma detection devices, thus extending the distribution agreement through the end of 2008. In December 2007, Neoprobe and EES executed an amendment to the distribution agreement which extended the agreement through the end of 2013. Under the agreement, we manufacture and sell our current line of SLNB products exclusively to EES, who distributes the products globally, except in Japan. EES agreed to purchase minimum quantities of our products over the first three years of the term of the agreement and to reimburse us for certain research and development costs and a portion of our warranty costs. We are obligated to continue certain product maintenance activities and to provide ongoing regulatory support for the products.

EES may terminate the agreement if we fail to supply products for specified periods, commit a material breach of the agreement, suffer a change of control to a competitor of EES, or become insolvent. If termination were due to failure to supply or a material breach by us, EES would have the right to use our intellectual property and regulatory information to manufacture and sell the products exclusively on a global basis for the remaining term of the agreement with no additional financial obligation to us. If termination is due to insolvency or a change of control that does not affect supply of the products, EES has the right to continue to sell the products on an exclusive global basis for a period of six months or require us to repurchase any unsold products in its inventory.

Under the agreement, EES received a non-exclusive worldwide license to our SLNB intellectual property to make and sell other products that may be developed using our SLNB intellectual property. The term of the license is the same as that of the agreement. EES paid us a non-refundable license fee of \$4 million. We recognized the license fee as revenue on a straight-line basis over the five-year initial term of the agreement, and the license fee was fully amortized into income as of the end of September 2004. As consideration for extending the distribution agreement through the end of 2013, EES paid us \$500,000 in December 2007, representing a non-refundable license fee and reimbursement of past research and development expenses. We intend to recognize the \$500,000 payment as revenue on a straight-line basis over the extended



term of the agreement, or January 2009 through December 2013. If we terminate the agreement as a result of a material breach by EES, they would be required to pay us a royalty on all products developed and sold by EES using our SLNB intellectual property. In addition, we are entitled to a royalty on any SLNB product commercialized by EES that does not infringe any of our existing intellectual property.

- c. **Research and Development Agreements:** Cardiosonix' research and development efforts have been partially financed through grants from the Office of the Chief Scientist of the Israeli Ministry of Industry and Trade (the OCS). Through the end of 2004, Cardiosonix received a total \$775,000 in grants from the OCS. In return for the OCS's participation, Cardiosonix is committed to pay royalties to the Israeli Government at a rate of 3% to 5% of the sales of its products, up to 300% of the total grants received, depending on the portion of manufacturing activity that takes place in Israel. There are no future performance obligations related to the grants received from the OCS. However, under certain limited circumstances, the OCS may withdraw its approval of a research program or amend the terms of its approval. Upon withdrawal of approval, Cardiosonix may be required to refund the grant, in whole or in part, with or without interest, as the OCS determines. In January 2006, the OCS consented to the transfer of manufacturing as long as we comply with the terms of the OCS statutes under Israeli law. As long as we maintain at least 10% Israeli content in our blood flow devices, we will pay a royalty rate of 4% on sales of applicable blood flow devices and must repay the OCS a total of \$1.2 million in royalties. However, should the amount of Israeli content of our blood flow device products decrease below 10%, the royalty rate could increase to 5% and the total royalty payments due could increase to \$2.3 million. As such, the total amount we will have to repay the OCS will likely be 150% to 300% of the amounts of the original grants. Through December 2007, we have paid the OCS a total of \$57,000 in royalties related to sales of products developed under this program. As of December 31, 2007, we have accrued obligations for royalties totaling \$4,000.

During January 2002, we completed a license agreement with the University of California, San Diego (UCSD) for a proprietary compound that we believe could be used as a lymph node locating agent in SLNB procedures. The license agreement is effective until the later of the expiration date of the longest-lived underlying patent or January 30, 2023. Under the terms of the license agreement, UCSD has granted us the exclusive rights to make, use, sell, offer for sale and import licensed products as defined in the agreement and to practice the defined licensed methods during the term of the agreement. We may also sublicense the patent rights, subject to the approval of certain sublicense terms by UCSD. In consideration for the license rights, we agreed to pay UCSD a license issue fee of \$25,000 and license maintenance fees of \$25,000 per year. We also agreed to pay UCSD milestone payments related to successful regulatory clearance for marketing of the licensed products, a royalty on net sales of licensed products subject to a \$25,000 minimum annual royalty, fifty percent of all sublicense fees and fifty percent of sublicense royalties. We also agreed to reimburse UCSD for all patent-related costs. Total costs related to the UCSD license agreement were \$45,000 and \$91,000 in 2007 and 2006, respectively, and were recorded in research and development expenses.

UCSD has the right to terminate the agreement or change the nature of the agreement to a non-exclusive agreement if it is determined that we have not been diligent in developing and commercializing the covered products, marketing the products within six months of receiving regulatory approval, reasonably filling market demand or obtaining all the necessary government approvals.

During April 2005, we completed an evaluation license agreement with UCSD expanding the field of use for the proprietary compound developed by UCSD researchers. The expanded field of use will allow Lymphoseek to be developed as an optical or ultrasound agent. The evaluation license agreement was effective until March 31, 2007. Under the terms of the agreement, UCSD granted us limited rights to make and use licensed products as defined in the agreement and to practice the defined licensed methods during the term of the agreement for the sole purpose of evaluating our interest in negotiating a commercial license. We may also sublicense the patent rights, subject to the approval of certain sublicense terms by UCSD. In consideration for



the license

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rights, we agreed to pay UCSD an initial evaluation license fee of \$36,000 and evaluation license maintenance fees of \$9,000 payable on the first year anniversary of the effective date, \$9,000 payable on the eighteen-month anniversary of the effective date, and \$18,000 payable prior to termination. We also agreed to pay UCSD fifty percent of any sublicense fees and to reimburse UCSD for all patent-related costs. In March 2007, we executed a second evaluation license agreement which will be effective until March 31, 2008. In consideration for the license rights, we agreed to pay UCSD an initial evaluation license fee of \$20,000 and evaluation license maintenance fees of \$10,000 payable on the six-month anniversary of the effective date and \$10,000 payable on the twelve-month anniversary of the effective date. We also agreed to pay UCSD fifty percent of any sublicense fees and to reimburse UCSD for all patent-related costs. Total costs related to the UCSD evaluation license agreement were \$53,000 and \$18,000 in 2007 and 2006, respectively, and were recorded in research and development expenses.

During January 2005, we executed a license agreement with The Ohio State University (OSU), Cira LLC, and Cira Bio for certain technology relating to activated cellular therapy. The license agreement is effective until the expiration date of the longest-lived underlying patent. Under the terms of the license agreement, OSU has granted the licensees the exclusive rights to make, have made, use, lease, sell and import licensed products as defined in the agreement and to utilize the defined licensed practices. We may also sublicense the patent rights. In consideration for the license rights, we agreed to pay OSU a license fee of \$5,000 on January 31, 2006. We also agreed to pay OSU additional license fees related to initiation of Phase 2 and Phase 3 clinical trials, a royalty on net sales of licensed products subject to a minimum annual royalty of \$100,000 beginning in 2012, and a percentage of any non-royalty license income. Also during January 2005, we completed a business venture agreement with Cira LLC that defines each party's responsibilities and commitments with respect to Cira Bio and the license agreement with OSU. In connection with the execution of the option, Cira Ltd. also agreed to assign all interests in the ACT technology in the event of the closing of such a financing transaction. Total costs related to the OSU license agreement were \$9,000 in 2006 and were recorded as research and development expenses.

- d. Employment Agreements:** We maintain employment agreements with six of our officers. The employment agreements contain change in control provisions that would entitle each of the officers to one to two times their current annual salaries, vest outstanding restricted stock and options to purchase common stock, and continue certain benefits if there is a change in control of our company (as defined) and their employment terminates. As of December 31, 2007, our maximum contingent liability under these agreements in such an event is approximately \$1.9 million. The employment agreements also provide for severance, disability and death benefits. See Note 15(d).

#### **11. Leases:**

We lease certain office equipment under capital leases which expire from 2007 to 2009. In August 2003, we entered into an operating lease agreement for office space, which originally expired in September 2006. In February 2005, we entered into another operating lease agreement for additional office space expiring in January 2008. The February 2005 lease agreement also extended the term of the original lease through January 2008. In June 2007, we executed an amendment to the operating lease for office space, which extended the agreement through January 2013.

In June 2004, Cardiosonix entered into an operating sublease agreement for office space that expired in June 2005. In July 2004, Cardiosonix entered into a sublease agreement for parking space that expired in June 2005, and automatically renewed until either party terminated the agreement. The Cardiosonix office space and parking space subleases expired in January 2006.

The future minimum lease payments for the years ending December 31 are as follows:

|  | <b>Capital<br/>Leases</b> | <b>Operating<br/>Leases</b> |
|--|---------------------------|-----------------------------|
| 2008   | \$ 15,889                 | \$ 88,138                   |
| 2009   | 2,485                     | 98,465                      |
| 2010   |                           | 101,285                     |
| 2011   |                           | 104,105                     |
| 2012   |                           | 106,925                     |
|  | 18,374                    | \$ 498,918                  |
| Less amount representing interest                    | 1,360                     |                             |
| Present value of net minimum lease payments          | 17,014                    |                             |
| Less current portion                                 | 14,592                    |                             |
| Capital lease obligations, excluding current portion | \$ 2,422                  |                             |

Total rental expense was \$153,000 and \$163,000 for the years ended December 31, 2007 and 2006, respectively.

#### 12. Employee Benefit Plan:

We maintain an employee benefit plan under Section 401(k) of the Internal Revenue Code. The plan allows employees to make contributions and we may, but are not obligated to, match a portion of the employee's contribution with our common stock, up to a defined maximum. We accrued expenses of \$30,000 during 2007 and 2006 related to common stock to be subsequently contributed to the plan.

#### 13. Supplemental Disclosure for Statements of Cash Flows:

We paid interest aggregating \$869,000 and \$687,000 for the years ended December 31, 2007 and 2006, respectively. During 2007 and 2006, we transferred \$84,000 and \$96,000, respectively, in inventory to fixed assets related to the creation and maintenance of a pool of service loaner equipment. Also during 2007 and 2006, we prepaid \$160,000 and \$175,000, respectively, in insurance through the issuance of notes payable to finance companies with weighted average interest rates of 6.6% and 5.8%, respectively. The note payable to a finance company issued in 2007 matures in July 2008. No new equipment was leased during 2007 or 2006.

#### 14. Contingencies:

We are subject to legal proceedings and claims that arise in the ordinary course of business. In our opinion, the amount of ultimate liability, if any, with respect to these actions will not materially affect our financial position.

#### 15. Subsequent Events:

- a. **Stock-Based Compensation:** On January 3, 2008, the Compensation, Nominating and Governance (CNG) Committee of the Board of Directors granted 460,000 stock options with an exercise price of \$0.36 to employees and directors. Also on January 3, 2008, the CNG Committee granted 450,000 shares of restricted stock that will vest based on a defined performance objective to certain executives. See Note 1(n).
- b. **Derivative Liabilities:** Subsequent to December 31, 2007, Neoprobe and Montaur executed amendments to the Series A Note and the Series W warrants. The amendments eliminate certain minor cash-based penalty provisions in the Series A Note and Series W warrants which entitled the holders to different compensation than our common shareholders under certain

circumstances and qualifying Triggering Events. The provisions being modified and/or eliminated are the provisions that led to the derivative accounting treatment for the embedded conversion feature in the Series A Note and the Series W warrants. As such, based on the elimination/modification of those provisions, we intend to reclassify the estimated fair value of the conversion option and the warrant liabilities to additional paid-in capital during the first quarter of 2008. See Note 6.

- c. Warrant Exercises:** During the first quarter of 2008, David C. Bupp, our President and CEO, exercised 375,000 Series Q warrants in exchange for issuance of 375,000 shares of our common stock, resulting in gross proceeds of \$48,750. In addition, an outside investor exercised 500,000 Series Q warrants in exchange for issuance of 500,000 shares of our common stock, resulting in gross proceeds of \$65,000. Also during the first quarter of 2008, certain investors exercised a total of 1,354,349 Series R warrants on a cashless basis in exchange for issuance of 270,870 shares of our common stock. See Note 8(a).
- d. Employment Agreements:** Effective January 1, 2008, we entered into a new employment agreement with one officer. The new agreement has substantially similar terms to the officer's previous agreement. See Note 10(d).

#### 16. Supplemental Information (Unaudited):

The following summary financial data are derived from our consolidated financial statements that have been audited by our independent registered public accounting firm. These data are qualified in their entirety by, and should be read in conjunction with, our Consolidated Financial Statements and Notes thereto included herein.

| <i>(Amounts in thousands, except per share data)</i>                  | <b>Years Ended December 31,</b> |             |             |             |             |
|---|---------------------------------|-------------|-------------|-------------|-------------|
|   | <b>2007</b>                     | <b>2006</b> | <b>2005</b> | <b>2004</b> | <b>2003</b> |
| <b>Statement of Operations Data:</b>                                  |                                 |             |             |             |             |
| Net sales   | \$ 7,125                        | \$ 6,051    | \$ 5,919    | \$ 5,353    | \$ 5,564    |
| License and other revenue   |                                 |             |             | 600         | 946         |
| Gross profit  | 3,940                           | 3,419       | 3,543       | 3,608       | 3,385       |
| Research and development expenses                                     | 2,866                           | 3,803       | 4,032       | 2,454       | 1,894       |
| Selling, general and administrative expenses                          | 2,837                           | 3,076       | 3,156       | 3,153       | 3,103       |
| Loss from operations  | (1,763)                         | (3,460)     | (3,644)     | (1,999)     | (1,611)     |
| Other expenses  | (3,325)                         | (1,281)     | (1,285)     | (1,542)     | (188)       |
| Net loss  | \$ (5,088)                      | \$ (4,741)  | \$ (4,929)  | \$ (3,541)  | \$ (1,799)  |
| <b>Loss per common share:</b>   |                                 |             |             |             |             |
| Basic   | \$ (0.08)                       | \$ (0.08)   | \$ (0.08)   | \$ (0.06)   | \$ (0.04)   |
| Diluted   | \$ (0.08)                       | \$ (0.08)   | \$ (0.08)   | \$ (0.06)   | \$ (0.04)   |
| <b>Shares used in computing loss per common share: <sup>(1)</sup></b> |                                 |             |             |             |             |
| Basic   | 62,921                          | 58,587      | 58,434      | 56,764      | 40,338      |
| Diluted   | 62,921                          | 58,587      | 58,434      | 56,764      | 40,338      |

|  | <b>As of December 31,</b> |             |             |             |             |
|--|---------------------------|-------------|-------------|-------------|-------------|
|  | <b>2007</b>               | <b>2006</b> | <b>2005</b> | <b>2004</b> | <b>2003</b> |

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Balance Sheet Data:

|                       |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Total assets          | \$ 7,063  | \$ 8,034  | \$ 11,570 | \$ 15,366 | \$ 7,385  |
| Long-term obligations | 8,836     | 4,922     | 6,052     | 8,192     | 585       |
| Accumulated deficit   | (140,777) | (135,688) | (130,947) | (126,018) | (122,477) |

(1) Basic earnings (loss) per share are calculated using the weighted average number of common shares outstanding during the periods. Diluted earnings (loss) per share is calculated using the weighted average number of common shares outstanding during the periods, adjusted for the effects of convertible securities, options and warrants, if dilutive.