

NEOPROBE CORP
Form 424B3
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Registration No. 333-139185

**FIRST 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 September 14, 2007, the last reported sale price for our common stock as reported on the OTC Bulletin Board was \$0.31 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 October 2, 2007.

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Unless otherwise specified, the information in this prospectus is set forth as of October 2, 2007, 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.

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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**[®]) technology. At that point, an evaluation of the status of the regulatory pathway for our **RIGS** products coupled with our limited financial resources caused us to suspend development activities related to our radiopharmaceutical business and to retrench our organization to focus on our medical device business. After achieving profitability in 2000 following this retrenchment, we set out on a growth strategy centered around medical device products. In December 2001, we acquired Biosonix Ltd., a private Israeli company limited by shares, which we subsequently renamed Cardiosonix Ltd. (Cardiosonix). Since 2001 through early 2007, we devoted substantial time and resources to commercializing Cardiosonix **Quantix**[®] line of blood flow measurement devices for a variety of diagnostic and surgical applications in the cardiac and vascular management arena. The results of Cardiosonix's efforts to date have not met with our expectations and we are in the process of critically evaluating the prospects for this business line.

Although our strategic focus expanded in 2001 to include blood flow measurement devices, we continued to look for other avenues to reinvigorate our radiopharmaceutical development. During 2004, our efforts resulted in a number of positive events that caused us to take steps to re-activate development of our radiopharmaceutical and therapeutic initiatives. As a result, in 2007 we have one of our radiopharmaceutical products, **Lymphoseek**[®], involved in a variety of clinical evaluations including a recently completed successful Phase 2 multi-center clinical trial, and a second, **RIGScan**[®] CR, for which we are clarifying the regulatory pathway and identifying potential sources of funding. In early 2005, we also formed a subsidiary, Cira Biosciences, Inc. (Cira Bio), to evaluate the current market opportunities for another technology platform, activated cellular therapy (ACT). Our unique virtual business model combines revenue generation from medical devices that contributes to covering our corporate overhead while we devote capital raised through financing efforts to incremental development such as **Lymphoseek** and look for development partners to assist us in the clinical and commercial development for **RIGScan** CR and ACT.

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 870,000 shares as of August 31, 2007, and we will issue the remaining 570,000 shares of the commitment fee pro rata as we sell \$6,000,000 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 August 31, 2007, there were 64,779,458 shares of our common stock outstanding (63,163,455 shares held by non-affiliates) excluding the 12,000,000 shares

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offered by Fusion Capital pursuant to this prospectus, of which it has not yet purchased 6,887,901 shares from us, and the remaining 570,000 commitment fee shares to be issued pro rata as we sell the \$6,000,000 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 17% of the total common stock outstanding or 17% 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. The registration statement was declared effective on October 2, 2007. 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.

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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 \$138 million and have an overall deficit in stockholders' equity as of June 30, 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 June 30, 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 the **Quantix** product line. 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 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 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**'s products have met with limited success. The long-term commercial success of the **Cardiosonix** 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 **Cardiosonix** 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 will likely 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

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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 through 2007. We expect to raise additional capital during 2007 in order to continue executing on our current business plan. However, if we are unsuccessful in raising additional capital, 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 have authorized up to 12,000,000 shares of our common stock for sale to Fusion under the agreement, and have 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 August 31, 2007, we have sold Fusion 5.1 million shares of common stock and issued 870,000 shares of stock as commitment fees to Fusion. Assuming the remaining 6.9 million shares are sold, the selling price per share would have to average at least \$0.69 for us to receive the maximum proceeds from this offering of \$6.0 million. Assuming a purchase price of \$0.27 per share (the closing sale price of the common stock on August 31, 2007) and the purchase by Fusion of the entire 12,000,000 shares, proceeds to us would only be \$3.2 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. 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 \$6.0 million potentially available 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.

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 completed patient enrollment in 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 in breast cancer and melanoma. We are also taking steps to obtain FDA 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 or FDA might delay or halt any clinical trials for our product candidates for various reasons, including:

ineffectiveness of the product candidate;

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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 a non-binding term sheet 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 reaching definitive terms with the potential U.S. distribution partner for **Lymphoseek** or 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.

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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;

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civil or criminal penalties;

finest;

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 two blood flow products, the **Quantix/ND** and **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.

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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. 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.

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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 2004, we completed several financings in which we issued common stock, convertible notes, warrants and other securities convertible into common stock to certain private investors and as required under the terms of those transactions, we filed 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.

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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.

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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. Cira Bio's rights to certain applications of the ACT technology may be affected by its failure to achieve certain capital raising milestones by December 31, 2006 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 trouble 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, except the intellectual property associated with our **Lymphoseek**, **RIGS** and ACT products under development, have been pledged as collateral for the remaining \$6.2 million in principal amount of our Series A Convertible Notes, issued to funds managed by Great Point Capital Partners and to our CEO under an agreement dated December 13, 2004, as amended November 30, 2006, and a Series B Convertible Note issued to our CEO and members of his family dated July 3, 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 (as of August 31, 2007: \$1,500,000 due January 7, 2008, \$2,000,000 due July 7, 2008, \$1 million due July 8, 2008 and \$2,600,000 due January 7, 2009), interest (10 -12% per annum, payable on March 31, June 30, September 30, and December 31 of each year) and other charges on the Notes when due;

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

we nominate and recommend for election as a director a person designated by the holders of the Series A Notes (as of August 31, 2007, the holders of the Series A Notes have not designated a potential board member);

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;

we indemnify the purchasers of the Notes against certain liabilities; and

we use our best efforts to offer and sell equity securities with gross proceeds of up to \$10 million and apply not less than 50% of the net proceeds of such sales to the repayment of principal on the Series A Notes.

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.

Further, the Series A Notes require us to apply at least 50% of the proceeds of any equity financing, permitted asset disposition or licensing, distribution or similar strategic alliance agreement to the repayment of principal on the Notes. 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.

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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 \$0.50 per share during the twelve-month period ended August 31, 2007. 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 August 31, 2007 was approximately 120,000 shares.

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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, 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, 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.

Table of Contents**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 completed fiscal years, and for the current fiscal year through September 14, 2007, 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 2007</i>			
First Quarter	\$0.28	\$0.20	\$0.24
Second Quarter	0.32	0.19	0.27
Third Quarter through September 14, 2007	0.50	0.20	0.31
<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
<i>Fiscal Year 2005:</i>			
First Quarter	\$0.72	\$0.37	\$0.46
Second Quarter	0.46	0.30	0.35
Third Quarter	0.40	0.25	0.30
Fourth Quarter	0.32	0.20	0.25

As of September 14, 2007, we had approximately 796 holders of common stock of record.

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, below.

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**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 Post-effective Amendment No. 1 to Registration Statement on Form SB-2, 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**[®] gamma detection systems and the **Quantix**[®] line of blood flow measurement devices of our subsidiary, Cardiosonix. In addition to our medical device products, we have two radiopharmaceutical products, **RIGScan**[®] CR and **Lymphoseek**[®], in the advanced phases of clinical development. We are also exploring the development of our activated cellular therapy (ACT) technology for patient-specific disease treatment through our majority-owned subsidiary, Cira Biosciences, Inc. (Cira Bio).

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**[®] (radioimmunoguided surgery); however, these technologies are not anticipated to generate any significant revenue for us during 2007. 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 2007. Sales of our blood flow measurement devices also continue to be below our expectations. While we have seen enough instances of success when the products have been demonstrated to cardiovascular surgeons to give us cause for optimism, these product demonstrations have not yet translated into significant sales for the Company. As a result, we currently expect that blood flow-related revenue for 2007 may fall below 2006 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 our **Lymphoseek** efforts to complete manufacturing validation and scale-up, to complete Phase 3 clinical trials and to prepare for the submission of a new drug application to the U.S. Food and Drug Administration (FDA) which we expect to submit in 2008 subject to clearance from FDA to commence the Phase 3 studies in a timely fashion. We anticipate the total outsourced out-of-pocket costs for **Lymphoseek** to be approximately \$9 – 10 million. We also expect to incur development expenses in 2007 as we continue to innovate our device product lines, although we do not currently expect our out-of-pocket expenses to exceed \$1 million related to these projects in 2007. We are currently devoting minimal incremental resources and funding to support our blood flow measurement business beyond that needed to support our gamma device line 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

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adjust our business plans accordingly. We may also incur some minor development expenses in 2007 related to our RIGS radiopharmaceutical product development although we intend to defer any major expenses until we identify a partner to assist us in the development and commercialization of **RIGScan CR**. We will likely show a loss for fiscal year 2007 primarily due to our drug product development efforts.

As of June 30, 2007 our cash on hand totaled \$1.2 million. We believe our currently available capital resources will be adequate to sustain our operations at planned levels through the end of 2007. We intend to 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** and our medical device product lines. 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 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. 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. The National Cancer Institute (NCI) has sponsored two large randomized clinical trials (research studies) for breast cancer comparing sentinel lymph node biopsy (SLNB) with conventional axillary lymph node dissection. The trials were conducted by the National Surgical Adjuvant Breast and Bowel Project (NSABP) and the American College of Surgeons Oncology Group (ACOSOG). NSABP and ACOSOG are both NCI-sponsored Clinical Trials Cooperative Groups, which are networks of institutions and physicians across the country who jointly conduct trials. Although several studies have examined the correlation between the sentinel node and the remaining axillary nodes, these are the first two large randomized multi-center trials 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, final data from these studies likely will not be presented for another year or so. 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 SLNB in future years in areas beyond melanoma and breast cancer. To that end, we are supporting the clinical evaluation of **Lymphoseek** 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 potential replacement sales. As such, our marketing focus in all major global markets for gamma detection devices will continue to be among local/regional hospitals, which typically lag behind leading research centers and major hospitals in adapting to new technologies. A decline in the adoption rate of SLNB at these institutions 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 gamma detection probe at the American College of Surgeons 92nd Annual Clinical Congress meeting in Chicago in October 2006. The new probe uses Bluetooth[®] 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 designed to be used with all existing models of our **neo2000** system (Models 2000, 2100 and 2200). The wireless probe is available with either a straight or angled detection tip.

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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. We believe that total quantities of base **neo2000** systems expected to be purchased by EES during 2007 should be consistent with 2005 and 2006 purchase levels. We cannot assure you, however, that EES product purchases beyond those firmly committed through late 2007 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 gamma detection devices declined less than 3% in 2006 as compared to 2005; however, the transfer price that we received from selling to EES during 2006 remained approximately 18% above the floor pricing for the base system configuration. 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 continues into 2007, there is a risk associated with future sales 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 2007, excluding the allocation of any corporate general and administrative costs. We also believe the anticipated volumes would result in continued profitability for our gamma device business line for 2007, 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 through mid-2007 has centered around completing the Phase 2 clinical trial for **Lymphoseek** for patients with breast cancer or melanoma. **Lymphoseek** is intended to be used in biopsy 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.

Based on recent discussions with FDA, we plan to propose to the agency that we conduct two separate Phase 3 studies, each of which would involve approximately 200 evaluable patients with either melanoma or breast cancer. We expect the study protocol to provide for patients in these trials to receive both **Lymphoseek** and a non-radiopharmaceutical agent that is currently used as a marker in lymphatic mapping procedures. Our discussions with FDA also suggest that the Phase 3 trials will be structured to 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**.

We will hold an end of Phase 2 meeting with FDA before the Phase 3 trials can be initiated. This will likely mean that, although we continue to project that the Phase 3 trials will commence during the fourth quarter of 2007, it will likely be closer to the end of the year than previously thought. We plan to have approximately 35 participating institutions in each Phase 3 trial, which should enable us to enroll patients at a more rapid rate than we experienced with the Phase 2 study. Our goal is to file the new drug application for **Lymphoseek** during the second half of 2008, which 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 2009.

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

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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.

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. 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 addition, because Cira Bio was not successful in obtaining sufficient capital by December 31, 2006, 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 have two blood flow measurement devices, the **Quantix/OR**TM and the **Quantix/ND**TM, that have 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 while the **Quantix/ND** is designed to measure blood flow in neurovascular settings. 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 goal is to secure and maintain marketing and distribution arrangements with partners who possess appropriate expertise in marketing medical devices, preferably ultrasound or cardiac care devices, into our primary target markets, the cardiovascular, vascular surgery and neurosurgical markets.

Our strategy related to Cardiosonix products for the remainder 2007 is to close on sales leads generated over the course of the year and to work to increase the number of competitive product evaluations to which we are invited. 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 are also investigating alternative pricing strategies such as per-use fees or leasing that may affect the adoption rates for our blood flow measurement devices. However, we anticipate that the product development and market support costs we will incur in 2007 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 2007 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 2007, excluding the allocation of any corporate general and administrative costs; however, we expect to show a loss for our blood flow device product line for 2007 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 2007 will also be greatly affected by the amount of development of our radiopharmaceutical products.

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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 2007. 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 beneficial conversion feature of the convertible debt and for the warrants issued in connection with the private placement we completed in December 2004 and modified in November 2006. 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.

YEARS ENDED DECEMBER 31, 2006 AND 2005**Results of Operations**

Revenue for 2006 increased to \$6.1 million from \$5.9 million in the prior year. The increase was due to increased blood flow device sales of \$263,000, offset by a decrease of \$134,000 in sales of gamma detection devices and extended service contracts.

Gross profit for 2006 decreased \$124,000 or 4% as compared to 2005. The decrease in gross profit on net sales of our medical devices in 2006 was primarily due to the decline in gross margin percentage related to our blood flow product line. The decline in blood flow gross margin percentage resulted from \$129,000 of inventory impairments related to design changes to our **Quantix** products in 2006 coupled with lower margins on blood flow sales due to a greater proportion of blood flow devices being sold on a wholesale basis to distributors as opposed to on a retail basis to end customers. By comparison, we recorded \$45,000 of inventory impairments related to our laparoscopic gamma detection probe and \$13,000 of inventory impairments related to our blood flow product line in 2005.

Results for 2006 also reflect significant expenditures made in the development of **Lymphoseek** and in continuing to innovate our gamma detection device line with the introduction of a Bluetooth wireless probe. Despite these development advances, our research and development costs for 2006 decreased to \$3.8 million compared to \$4.0 million in 2005. Consolidated general and administrative expenses decreased slightly to \$3.1 million in 2006 from \$3.2 million in 2005.

Net Sales and Margins. Net sales, primarily of our gamma detection systems, increased \$132,000, or 2%, to \$6.1 million in 2006 from \$5.9 million in 2005. Gross margins on net sales decreased to 57% of net sales for 2006 compared to 60% of net sales for 2005.

The increase in net sales was the result of increased blood flow device sales of \$263,000, offset by a decrease of \$134,000 in sales of gamma detection devices and extended service contracts. 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 3% from 2005 to 2006.

The decrease in gross margins on net product sales was primarily the result of a greater proportion of blood flow devices being sold on a wholesale basis to distributors as opposed to on a retail basis to end customers. Gross margins in 2006 were also adversely affected by inventory impairments of \$129,000 related to design changes to our **Quantix** products. Gross margins in 2005 were adversely affected by inventory impairments of \$45,000 related to our laparoscopic gamma detection probe and \$13,000 related to our blood flow measurement products.

Research and Development Expenses. Research and development expenses decreased \$229,000, or 6%, to \$3.8 million during 2006 from \$4.0 million in 2005. Research and development expenses in 2006 included approximately \$2.1 million in drug and therapy product development costs, \$952,000 in gamma detection device development costs, and \$708,000 in product design activities for the **Quantix** products. This compares to expenses of \$2.3 million, \$276,000 and \$1.4 million in these respective product categories in 2005. The changes in each category were primarily due to (i) efforts to move development of **Lymphoseek** forward offset by decreased activities related to **RIGScan CR** and our therapeutic products, (ii) development of our Bluetooth wireless gamma detection probe, and (iii) decreased product refinement activities related to the **Quantix/OR**, respectively.

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Selling, General and Administrative Expenses. Selling, general and administrative expenses decreased \$79,000, or 3%, to \$3.1 million during 2006 from \$3.2 million in 2005. Decreases in amortization of intangible assets, professional services and insurance were offset by increases in base compensation, including \$156,000 of non-cash stock compensation required to be expensed starting in 2006 under SFAS No. 123(R), *Share-Based Payment*, coupled with increases in marketing and recruiting expenses.

Other Income (Expenses). Other expenses remained steady at \$1.3 million during 2006 and 2005. Interest expense increased \$146,000 to \$1.5 million during 2006 from \$1.4 million during 2005 related to the convertible debt agreements we completed in December 2004. Of this interest expense, \$809,000 and \$687,000 in 2006 and 2005, 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. This increase was offset by the first quarter 2005 increase in warrant liability of \$142,000 resulting from the accounting treatment for the warrants we issued in connection with the convertible debt.

Liquidity and Capital Resources

Operating Activities. Cash used in operations increased \$556,000 to \$3.6 million during 2006 from \$3.0 million during 2005. Working capital decreased \$5.0 million to \$1.9 million at December 31, 2006 as compared to \$6.9 million at December 31, 2005. The current ratio decreased to 1.6:1 at December 31, 2006 from 5.6:1 at December 31, 2005. The decrease in working capital was primarily related to \$3.6 million used in operations coupled with the classification of \$1.7 million of convertible debt as a current liability following modification of the debt terms in November 2006, as compared to no current convertible debt at December 31, 2005.

Cash and investment balances decreased to \$2.5 million at December 31, 2006 from \$6.5 million at December 31, 2005, primarily as a result of cash used to fund operating activities and service our debt during 2006.

Accounts receivable increased to \$1.2 million at December 31, 2006 from \$673,000 at December 31, 2005. The increase was primarily a result of normal fluctuations in timing of purchases and payments by EES. We expect overall receivable levels will continue to fluctuate in 2007 depending on the timing of purchases and payments by EES.

However, on average, we expect accounts receivable balances will increase commensurate with anticipated increases in sales of blood flow measurement products to our distributors. Such increases, if any, may require the increased use of our cash resources over time. Inventory levels increased to \$1.2 million at December 31, 2006 from \$804,000 at December 31, 2005. Finished gamma detection device inventories increased as we built up of our safety stock levels, and materials and work-in-process inventories increased in connection with the start-up of Bluetooth wireless gamma detection probe production. In addition, we capitalized \$48,000 of **Lymphoseek** materials inventory during 2006.

During 2006, we also recorded inventory impairment charges totaling \$129,000, primarily related to our **Quantix** products. We expect inventory levels to decrease during 2007 as we convert our Bluetooth inventory into sales and reassess our gamma detection and blood flow measurement device safety stock levels.

Prepaid expenses and other assets decreased to \$431,000 at December 31, 2006 from \$502,000 at December 31, 2005. The net decrease was primarily the result of decreases in various prepaid assets such as prepaid production costs and prepaid insurance which were offset by net increases in certain non-cash items such as deferred stock offering costs. Accounts payable increased to \$668,000 at December 31, 2006 from \$208,000 at December 31, 2005, primarily due to the timing of purchases and payments to vendors.

Investing Activities. Investing activities provided \$1.4 million in cash during 2006 versus \$1.6 million used during 2005. We received \$1.5 million from maturities of available-for-sale securities during 2006. We purchased \$5.5 million and received \$4.0 million from maturities of available-for-sale securities during 2005. Capital expenditures during 2006 were primarily for software and production tools and equipment in

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preparation for Bluetooth wireless gamma detection probe production at our contract manufacturers. Capital expenditures during 2005 were primarily related to purchases of production tools and equipment in preparation for blood flow measurement device production. We expect our overall capital expenditures for 2007 will be lower than for 2006.

Financing Activities. Cash used in financing activities decreased \$33,000 to \$240,000 during 2006 from \$273,000 during 2005. Proceeds from the issuance of common stock were \$50,000 and \$58,000 in 2006 and 2005, respectively. Payments of common stock and debt issuance costs were \$36,000 and \$30,000 in 2006 and 2005, respectively. Payments of notes payable were \$235,000 and \$286,000 during 2006 and 2005, respectively.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion). 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 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 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. 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.

During 2005, certain investors and placement agents who received warrants to purchase our common stock in connection with a November 2003 financing exercised a total of 206,865 warrants in exchange for 206,865 shares of our common stock, resulting in net proceeds of \$57,922.

In December 2004, we completed a private placement of four-year convertible promissory notes in an aggregate principal amount of \$8.1 million 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. We modified the convertible notes on November 30, 2006 to eliminate the revenue and cash covenants, modify the repayment schedule of the notes, eliminate certain anti-dilution rights, and avoid potential future violations of the debt covenants. The notes originally bore interest at 8% per annum and were originally due on December 13, 2008. In connection with the November 30, 2006 amendment, we cancelled the original notes and issued to the noteholders replacement notes which bear interest at 12% per annum. Instead of the notes being due on December 13, 2008, the principal is now due 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. Additionally, as part of the amendment we agreed to use our best efforts to offer and sell equity securities with gross proceeds of up to \$10 million and apply not less than 50% of the net proceeds of any such sales to the repayment of the principal on the notes, and to apply at least 50% of the proceeds of any permitted asset disposition or any permitted licensing, distribution or similar strategic alliance agreement to the repayment of principal on the notes. The notes are freely convertible into shares of our common stock at a price of \$0.40 per share. Neoprobe may force conversion of the notes prior to their stated maturity under certain circumstances. 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 the original placement of this financing, we issued 1,600,000 Series U warrants to purchase our common stock to the placement agents, containing substantially identical terms to the warrants issued to the investors. The convertible promissory note issued to Mr. Bupp in connection with this transaction had an outstanding principal amount of \$100,000 on December 31, 2006, and an outstanding principal amount of \$100,000 as of March 14, 2007. We made interest payments due under the note to Mr. Bupp totaling \$8,333 during the fiscal year ended December 31, 2006.

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THREE AND SIX MONTH PERIODS ENDED JUNE 30, 2007 AND 2006

Overview

This Overview section contains a number of forward-looking statements, all of which are based on current expectations. Actual results may differ materially from the anticipated results discussed herein. Our financial performance is highly dependent on our ability to continue to generate income and cash flow from our gamma detection device product line and on our ability to successfully commercialize the blood flow measurement products of Cardiosonix. We cannot assure you that we will achieve the volume of sales anticipated, or if achieved, that the margin on such sales will be adequate to produce positive operating cash flow. We continue to be optimistic about the longer-term potential for our other proprietary, procedural-based technologies such as Lymphoseek, RIGS[®] (radioimmunoguided surgery) and ACT; however, these technologies are not anticipated to generate any significant revenue for us during 2007. In addition, we cannot assure you that these products will ever obtain marketing clearance from the appropriate regulatory bodies.

Our revenue for the first six months of 2007 was consistent overall with our original expectations. Gamma detection device revenue was buoyed by sales of our Bluetooth[®] probes to our primary gamma detection device marketing partner, Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company. Higher than expected unit sales and unit prices of our Bluetooth probes were offset by lower unit sales and declines in unit prices of our base neo2000 system and accessories. We expect that revenue from our gamma detection systems for 2007 will be slightly higher than 2006; however, continued price declines for these base systems in international markets may adversely affect our gamma detection device revenue for the remainder of 2007 as compared to 2006. Sales of our blood flow measurement devices also continue to be below our expectations. While we have seen enough instances of success when the products have been demonstrated to cardiovascular surgeons to give us cause for optimism, these product demonstrations have not yet translated into significant sales for the company. As a result, we currently expect that blood flow-related revenue for 2007 may fall below 2006 levels. Future sales of Quantix devices are highly dependent upon our ability to maintain our blood flow measurement device marketing and distribution partners, the success of our distribution partners in generating sales leads, our distribution partners' ability to negotiate within the constraints of current hospital purchasing practices, and ultimately on physician response to these products and procedures themselves.

Our operating expenses during the first six months of 2007 were focused primarily on support of Lymphoseek product development. In addition, we continued to modestly invest in our neo2000 gamma detection device line related to completing the technology transfer of our Bluetooth probes into commercial manufacturing. We expect our drug-related development expenses to decrease over the next few months until we initiate the multi-center Phase 3 clinical evaluations of Lymphoseek. We expect to continue to incur development expenses to support our gamma detection device product line as well as move our other product initiatives forward. We also expect to continue to modestly invest in marketing and clinical development support for our blood flow measurement products during the remainder of 2007 as we work with our distribution partners to expand market penetration of our Quantix product lines.

Our efforts thus far in 2007 have resulted in the following research and development and business milestone achievements:

Granted authorization by the U.S. Food and Drug Administration (FDA) to commence patient enrollment in two Phase 1 clinical studies to evaluate the safety and efficacy of Lymphoseek in prostate and colon cancers.

Achieved and reported positive preliminary results from the Phase 2 Lymphoseek trial in breast cancer and melanoma. Based on pathology confirmed results, Lymphoseek identified lymphatic tissue in over 94% of the surgically treated patients, which exceeded the trial's objective of 90% efficacy.

Extended the company's option agreement with the University of California, San Diego covering the potential use of Lymphoseek as an optical or ultrasound agent.

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Filed an updated chemistry, manufacturing and control (CMC) amendment on Lymphoseek and an expanded non-clinical study package with FDA in preparation for the next phase of Lymphoseek clinical development program.

Commenced development activities for the Phase 3 clinical studies of Lymphoseek, including holding a successful preliminary meeting with FDA.

Completed the second of three current Good Manufacturing Practices (cGMP) production runs of Lymphoseek.

Closed on a \$1.0 million investment in the company led by our President and CEO, David Bupp.

Executed a term sheet for the marketing and distribution of Lymphoseek in the United States with the nuclear pharmacy division of Cardinal Health, Inc.

We received clearance from FDA in May 2006 to move forward with activities to commence patient enrollment for a 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 have announced positive efficacy results in our Phase 2 Lymphoseek trial. Localization of Lymphoseek to lymphoid tissue was observed in over 94% of the sentinel lymph node biopsy (SLNB) procedures performed during the Phase 2 trial. 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 with FDA, we plan to propose to the agency that we conduct two separate Phase 3 studies, each of which would involve approximately 200 evaluable patients with either melanoma or breast cancer. We expect the study protocol to provide for patients in these trials to receive both Lymphoseek and a non-radiopharmaceutical agent that is currently used as a marker in lymphatic mapping procedures. Our discussions with FDA also suggest that the Phase 3 trials will be structured to 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.

We will hold an end of Phase 2 meeting with FDA before the Phase 3 trials can be initiated. This will likely mean that, although we continue to project that the Phase 3 trials will commence during the fourth quarter of 2007, it will likely be closer to the end of the year than previously thought. We plan to have approximately 35 participating institutions in each Phase 3 trial, which should enable us to enroll patients at a more rapid rate than we experienced with the Phase 2 study. Our goal is to file the new drug application for Lymphoseek during the second half of 2008, which 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 2009.

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. In addition, Neoprobe has discussed the drug approval and registration process through the centralized European drug evaluation procedures with the European Medicinal Evaluation Agency (EMA) in London. We plan to use the results from the Phase 3 clinical evaluation of Lymphoseek, which we currently intend to include sites in the EU, to support the drug registration application process with the EMA. We cannot assure you, however, that this product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

Over the past few years, we have made progress in advancing our RIGScan CR development program while incurring 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. 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 protocol assessment and completing a final protocol

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review. At present, we plan to submit a clinical development plan for RIGScan CR to FDA and to request a meeting to review the development plan and clinical protocol as part of the development plan in the fourth quarter of 2007. The clinical protocol envisioned would involve approximately 300 patients in a randomized trial of patients with 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. 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 for the RIGS technology and do not know if a partner will 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.

Cira Bio was formed to raise the necessary capital to move the ACT technology platform forward; however, Cira Bio has not yet identified a potential source of capital. Obtaining this funding would likely dilute Neoprobe's ownership interest in Cira Bio. While 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, we do not know if we will be successful in obtaining funding on terms acceptable to us, or at all. In addition, because Cira Bio was not successful in obtaining sufficient capital by December 31, 2006, 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 Bio's minority shareholder, Cira LLC, upon notice by either party.

We anticipate generating a net profit from the sale of our gamma detection devices in 2007, 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 2007 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 beyond that needed to support our gamma device line 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. Our overall operating results for 2007 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 2007. 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 beneficial conversion feature of the convertible debt and for the warrants issued in connection with the private placement we completed in December 2004 and modified in November 2006. 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.

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Revenue for the first six months of 2007 increased to \$3.3 million from \$3.2 million during the same period in 2006. Research and development expenses, as a percentage of net sales, increased to 53% during the first six months of 2007 from 46% during the same period in 2006. Selling, general and administrative expenses, as a percentage of net sales, decreased to 44% during the first six months of 2007 from 50% during the same period in 2006. Due to the ongoing development activities of the company, research and development expenses as a percentage of sales are expected to be higher in 2007 than they were in 2006. In addition, should we be successful in our ongoing commercialization activities related to the Quantix product line, and in achieving increased sales of our Bluetooth probes in 2007, selling, general and administrative expenses as a percentage of sales are expected to continue to decrease in 2007 compared to 2006.

Three Months Ended June 30, 2007 and 2006

Net Sales and Margins. Net sales, comprised primarily of sales of our gamma detection systems, increased \$83,000, or 6%, to \$1.5 million during the second quarter of 2007 from \$1.4 million during the same period in 2006. Gross margins on net sales decreased to 54% of net sales for the second quarter of 2007 compared to 58% of net sales for the same period in 2006.

The increase in net sales was the result of increased gamma detection device sales of \$83,000 and increased gamma detection device extended service contract revenue of \$32,000, offset by decreases of \$23,000 in gamma detection device service-related revenue and \$9,000 in blood flow measurement device sales. Revenue from our new Bluetooth wireless probes more than offset unit sales and price declines on our base gamma detection systems. 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 4% during the second quarter of 2007 compared to the same period 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 Bluetooth probe demonstration units during the second quarter of 2007, a price decline on base systems sold by EES, higher than expected production costs on our initial production runs of Bluetooth probes, and increased estimated warranty costs related to the commercial launch of our new Bluetooth probe products. Gross margins in the second quarter of 2007 were also adversely affected by inventory impairments of \$29,000 related to our Quantix products.

Research and Development Expenses. Research and development expenses increased \$233,000 or 36% to \$875,000 during the second quarter of 2007 from \$643,000 during the same period in 2006. Research and development expenses in the second quarter of 2007 included approximately \$611,000 in drug and therapy product development costs, \$163,000 in gamma detection device development costs, and \$101,000 in product design activities for the Quantix products. This compares to expenses of \$207,000, \$235,000 and \$201,000 in these relative segment categories during the same period in 2006. The changes in each category were primarily due to (i) efforts to move development of Lymphoseek forward offset by decreased activities related to RIGScan CR and our therapeutic products, (ii) decreased product development activities related to our Bluetooth 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 \$104,000 or 14% to \$650,000 during the second quarter of 2007 from \$754,000 during the same period in 2006. The net difference was due primarily to decreases in marketing, insurance, and the timing of professional services.

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Other Income (Expenses). Other expenses increased \$128,000 to \$427,000 during the second quarter of 2007 from \$298,000 during the same period in 2006. Interest expense related to the convertible debt agreements we completed in December 2004 increased \$81,000 to \$445,000 during the second quarter of 2007 from \$363,000 for the same period in 2006. Of this interest expense, \$221,000 and \$198,000 in the second quarters of 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. In addition, we recorded a decrease of \$43,000 in interest income related to lower balances of cash and investments during the second quarter of 2007 compared to the same period in 2006.

Six Months Ended June 30, 2007 and 2006

Net Sales and Margins. Net sales, comprised primarily of sales of our gamma detection systems, increased \$39,000, or 1%, to \$3.3 million during the first six months of 2007 from \$3.2 million during the same period in 2006. Gross margins on net sales decreased to 54% of net sales for the first six months of 2007 compared to 58% of net sales for the same period in 2006.

The increase in net sales was the result of increased gamma detection device sales of \$130,000 and increased gamma detection device extended service contract revenue of \$43,000, offset by decreases of \$116,000 in blood flow measurement device sales and \$18,000 in gamma detection device service-related revenue. Revenue from our new Bluetooth wireless probes more than offset unit sales and price declines on our base gamma detection systems. 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 4% during the first six months of 2007 compared to the same period 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 Bluetooth probe demonstration units during the first six months of 2007, a price decline on base systems sold by EES, higher than expected production costs on our initial production runs of Bluetooth probes, and increased warranty estimates related to our new Bluetooth probe products. Gross margins in the first six months of 2007 were also adversely affected by inventory impairments of \$46,000 related to our Quantix products.

Research and Development Expenses. Research and development expenses increased \$262,000 or 18% to \$1.7 million during the first six months of 2007 from \$1.5 million during the same period in 2006. Research and development expenses in the first six months of 2007 included approximately \$1.2 million in drug and therapy product development costs, \$377,000 in gamma detection device development costs and \$207,000 in product design activities for the Quantix products. This compares to expenses of \$672,000, \$347,000 and \$458,000 in these relative segment categories during the same period in 2006. The changes in each category were primarily due to (i) efforts to move development of Lymphoseek forward offset by decreased activities related to RIGScan CR and our therapeutic products, (ii) development of our Bluetooth 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 \$173,000 or 11% to \$1.4 million during the first six months of 2007 from \$1.6 million during the same period in 2006. The net difference was due primarily to decreases in marketing, insurance, and other personnel-related expenses, partially offset by increased costs related to completing the technology transfer of our Bluetooth probes into commercial manufacturing.

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Other Income (Expenses). Other expenses increased \$255,000 to \$845,000 during the first six months of 2007 from \$590,000 during the same period in 2006. Interest expense related to the convertible debt agreements we completed in December 2004 increased \$167,000 to \$887,000 during the first six months of 2007 from \$720,000 for the same period in 2006. Of this interest expense, \$431,000 and \$389,000 in the first six months of 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. In addition, we recorded a decrease of \$84,000 in interest income related to lower balances of cash and investments during the first six months of 2007 compared to the same period in 2006.

Liquidity and Capital Resources

Operating Activities. Cash used in operations decreased \$623,000 to \$938,000 during the first six months of 2007 compared to \$1.6 million during the same period in 2006. The current ratio decreased to 0.8:1 at June 30, 2007 from 1.6:1 at December 31, 2006. Cash and investment balances decreased to \$1.2 million at June 30, 2007 from \$2.5 million at December 31, 2006, primarily as a result of cash used in operations, mainly for research and development activities, and to service our debt during the first six months of 2007.

Accounts receivable decreased to \$1.1 million at June 30, 2007 from \$1.2 million at December 31, 2006. The decrease was primarily a result of normal fluctuations in timing of purchases and payments by EES. We expect overall receivable levels will continue to fluctuate during 2007 depending on the timing of purchases and payments by EES. Inventory levels decreased to \$1.1 million at June 30, 2007 as compared to \$1.2 million at December 31, 2006.

Gamma detection device materials and work-in-process inventories decreased as we completed and sold the initial production runs of Bluetooth wireless probes, while finished device inventories increased due to normal fluctuations in timing of sales to EES. Blood flow measurement device materials and finished device inventories decreased, primarily due to recording inventory impairment charges totaling \$46,000 during the first six months of 2007. These decreases were partially offset by increases in drug work-in-process inventories as we completed the second commercial production run of Lymphoseek. We expect inventory levels to decrease during 2007 as we convert our Bluetooth inventory into sales and reassess our gamma detection and blood flow measurement device safety stock levels.

Investing Activities. Investing activities used \$38,000 during the first six months of 2007 versus \$1.5 million provided during the same period in 2006. We received \$1.5 million from maturities of available-for-sale securities during the first six months of 2006. Capital expenditures during the first six months of 2007 were primarily for production tools and equipment and software. Capital expenditures during the first six months of 2006 were primarily for software. We expect our overall capital expenditures for 2007 will be lower than for 2006.

Financing Activities. Cash used in financing activities increased \$175,000 to \$320,000 during the first six months of 2007 from \$145,000 during the same period in 2006. Proceeds from the issuance of common stock were \$650,000 during the first six months of 2007. Payments of common stock offering costs were \$20,000 during the first six months of 2007. Payments of notes payable were \$942,000 and \$130,000 during the first six months of 2007 and 2006, respectively.

In December 2004, we completed a private placement of four-year convertible promissory notes in an aggregate principal amount of \$8.1 million 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. We modified the convertible notes in November 2006 to eliminate the revenue and cash covenants, modify the repayment schedule of the notes, eliminate certain anti-dilution rights, and avoid potential future violations of the debt covenants. The notes originally bore interest at 8% per annum and were originally due on December 13, 2008. In connection with the November 2006 amendment, we cancelled the original notes and issued to the noteholders replacement notes which bear interest at 12% per annum. Instead of the principal being due on December 13, 2008, the principal is now due as follows: \$500,000 due January 8, 2007; \$1,250,000

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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. Additionally, as part of the amendment we agreed to use our best efforts to offer and sell equity securities with gross proceeds of up to \$10 million and apply not less than 50% of the net proceeds of any such sales to the repayment of the principal on the notes, and to apply at least 50% of the proceeds of any permitted asset disposition or any permitted licensing, distribution or similar strategic alliance agreement to the repayment of principal on the notes. The notes are freely convertible into shares of our common stock at a price of \$0.40 per share. Neoprobe may force conversion of the notes prior to their stated maturity under certain circumstances. 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 the original placement of this financing, we issued 1,600,000 Series U warrants to purchase our common stock to the placement agents, containing substantially identical terms to the warrants issued to the investors. During the first six months of 2007, we timely paid the \$500,000 that was due on January 8, 2007, and made additional principal payments totaling \$325,000 related to sales of equity securities. The convertible promissory note issued to Mr. Bupp in connection with this transaction had an outstanding principal amount of \$100,000 on June 30, 2007, and an outstanding principal amount of \$100,000 as of August 7, 2007. During the first six months of 2007 and 2006, we made interest payments due under the note to Mr. Bupp totaling \$3,000 and \$4,000, respectively.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion). 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 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 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. 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 the first six months of 2007, we sold a total of 3,060,039 shares of our common stock under the agreement, realized gross proceeds of \$650,000 from such sales, and issued 78,000 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 purchased a \$1.0 million convertible note and warrants. The note bears interest at 10% per annum during its one-year term 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 purchasers 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 Mr. Bupp in connection with this transaction had an outstanding principal amount of \$1.0 million as of August 15, 2007.

Our future liquidity and capital requirements will depend on a number of factors, including our ability to raise additional capital in a timely manner through additional investment, expanded 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 near-term development priorities are to complete the Lymphoseek Phase 2 clinical study and to subsequently commence Phase 3 clinical trials for Lymphoseek. We timely paid the mandatory principal repayment that was due on July 9, 2007 under our amended 2004 convertible note agreement; however, we have significant principal repayments due under this agreement starting with a January 7, 2008 payment of \$1.7 million and continuing at increasing amounts approximately every six months thereafter through early 2009 that, based on our current

operating plan, will require us to raise additional capital. Although we have a potential source of capital

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through our common stock purchase agreement with Fusion and believe we have adequate capital to carry us through to the point of commencing the Phase 3 clinical trials for Lymphoseek, it is unlikely at current stock prices that we will be able to raise sufficient capital through this facility alone to fully fund the Phase 3 clinical development plan. We are actively soliciting and evaluating other potential sources of equity and debt funding; however, we may also be forced to seek relief from our current debt obligations and/or make significant modifications to our business plan in order to meet our obligations as currently anticipated. 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. In addition, we cannot assure you that we will be able to achieve significant product revenues from our current or potential new products. We also cannot assure you that we will achieve profitability again.

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 is effective for fiscal years beginning after November 15, 2007, and is required to be adopted by Neoprobe beginning January 1, 2008. 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 is permitted as of the beginning of a fiscal year that begins on or before November 15, 2007, provided the entity also elects to apply the provisions of SFAS No. 157, *Fair Value Measurements*. We have not completed our review of the new guidance; however, 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.

Critical Accounting Policies

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

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Revenue Recognition Related to Net Sales. We currently generate revenue primarily from sales of our gamma detection products; however, sales of blood flow measurement products constituted approximately 8% of total revenues for the first six months of 2007 and are expected to increase in the future. 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 used the modified prospective application method in adopting SFAS No. 123 (R). 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. Prior to the adoption of SFAS No. 123(R), we followed the guidance in APB No. 25 which resulted in disclosure only of the financial impact of stock options. Financial statements of the company for periods prior to January 1, 2006 do not reflect any recorded stock-based compensation expense. In adopting SFAS No. 123(R), we made no modifications to outstanding stock options, nor do we have any other outstanding share-based payment instruments subject to SFAS No. 123(R). Based in part on the anticipated adoption of SFAS No. 123(R), the company generally reduced number of stock options issued by individual in 2005 and shortened the vesting periods, with a portion of the options vesting immediately and the remainder vesting over a two-year period as compared to our previous practice of issuing stock options that vested over a three-year period. We will continue to evaluate compensation trends and may further revise our option granting practices in future years.

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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 June 30, 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.

Other Items Affecting Financial Condition

At December 31, 2006, we had deferred tax assets in the U.S. related to net operating tax loss carryforwards and tax credit carryforwards of approximately \$34.9 million and \$4.7 million, respectively, available to offset or reduce future income tax liability, if any, through 2026. 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.

Table of Contents**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**[®]) technology. At that point, an evaluation of the status of the regulatory pathway for our **RIGS** products coupled with our limited financial resources caused us to suspend development activities related to our radiopharmaceutical business and to retrench our organization to focus on our medical device business. After achieving profitability in 2000 following this retrenchment, we set out on a growth strategy centered around medical device products. In December 2001, we acquired Biosonix Ltd., a private Israeli company limited by shares, which we subsequently renamed Cardiosonix Ltd. (Cardiosonix). Since 2001 through early 2007, we devoted substantial time and resources to commercializing Cardiosonix **Quantix**[®] line of blood flow measurement devices for a variety of diagnostic and surgical applications in the cardiac and vascular management arena. The results of Cardiosonix's efforts to date have not met with our expectations and we are in the process of critically evaluating the prospects for this business line.

Although our strategic focus expanded in 2001 to include blood flow measurement devices, we continued to look for other avenues to reinvigorate our radiopharmaceutical development. During 2004, our efforts resulted in a number of positive events that caused us to take steps to re-activate development of our radiopharmaceutical and therapeutic initiatives. As a result, in 2007 we have one of our radiopharmaceutical products, **Lymphoseek**[®], involved in a variety of clinical evaluations including a recently completed successful Phase 2 multi-center clinical trial, and a second, **RIGScan**[®] CR, for which we are clarifying the regulatory pathway and identifying potential sources of funding. In early 2005, we also formed a subsidiary, Cira Biosciences, Inc. (Cira Bio), to evaluate the current market opportunities for another technology platform, activated cellular therapy (ACT). Our unique virtual business model combines revenue generation from medical devices that contributes to covering our corporate overhead while we devote capital raised through financing efforts to incremental development such as **Lymphoseek** and look for development partners to assist us in the clinical and commercial development for **RIGScan** CR and ACT.

Our Technology*Gamma Detection Devices*

Through the second quarter of 2007, substantially all of our revenue has been generated from the sale of a line of gamma radiation detection devices and related products 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 pocket flashlight. The **neo2000**[®] 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

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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 Bluetooth® wireless gamma detection probes 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). SLNB helps trace the lymphatic 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 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 two years ago and preliminary results may be available in the next year or two. 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.

In addition to lymphatic mapping, surgeons are investigating the use of our devices for other gamma-guided surgery applications, such as evaluating the thyroid function, in determining the state of disease in patients with vulvar and penile cancers, and for SLNB in prostate, gastric, colon, head and neck, and non-small cell lung cancers. Expanding the application of SLNB beyond the current primary uses in the treatment of breast cancer and melanoma is the primary focus of our strategy regarding our gamma-guided surgery products. 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 Bluetooth wireless probes introduced in late 2006. To that end, our goals for our gamma detection device business for the remainder of 2007 center around working with our marketing partners to further penetrate the breast care market and identify ways to expand the application of SLNB to other indications beyond breast cancer and melanoma. We also believe that our development of **Lymphoseek** could be an integral step in helping expand the application of SLNB.

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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** line of products that employ a unique and proprietary technology that allows for measurement of blood flow volume, velocity and several other hemodynamic parameters that permit 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** devices use 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. At present, Cardiosonix has two products in the early stages of commercialization designed to provide blood flow measurement and cardiac output information to physicians in cardiac/vascular surgery and neurosurgery. The technology also has the potential to be applied in other healthcare settings where measurement of blood flow may be beneficial.

Quantix/ORTM 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 generally 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.

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The initial physician and distributor evaluation of the flagship 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** over the last year 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.

Quantix/NDTM is intended to allow neurosurgeons and neurologists, as well as intensive care unit or emergency room physicians, to non-invasively measure the internal carotid artery blood flow in a simple, real-time manner.

Quantix/ND consists of a control unit and an ultrasound probe that obtains signals directly from the carotid artery in a non-invasive manner. **Quantix/ND** is designed primarily for use in monitoring head trauma patients in neuro-intensive care units and emergency rooms. Periodic blood flow measurements may minimize the risk of brain impairment. To date, we have placed the **Quantix/ND** device with only a limited number of thought leaders. While we are unaware of any competitive measurement system on the market today that provides real-time, bedside, non-invasive, continuous, direct and accurate measurements of a complete suite of hemodynamic parameters including blood flow, we also believe that the current market for the **Quantix/ND** may be primarily as a research tool until additional feedback is received from those who are evaluating the device. The **Quantix/ND** device has received CE mark regulatory clearance for marketing in the EU as well as FDA 510(k) clearance for marketing in the United States.

Our strategy related to Cardiosonix products for the remainder 2007 is to work with our marketing and distribution partners to close on sales leads generated over the course of the year and to work to increase the number of competitive product evaluations to which we are invited. 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 specifically designed and labeled for the targeting of lymphatic tissue.

Neoprobe and UCSD completed the initial pre-clinical evaluations of **Lymphoseek** in 2001. Since that time, UCSD has initiated five Phase I 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	Completed
Prostate	20	Ongoing
Colon	20	Ongoing

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These Phase I studies have been 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 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 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 early in 2005 and engaged 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 activities to commence patient enrollment for a 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 have announced positive efficacy results in our Phase 2 **Lymphoseek** trial in June 2007. Localization of **Lymphoseek** to lymphoid tissue was observed in over 94% of the sentinel lymph node biopsy (SLNB) procedures performed during the Phase 2 trial. 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 with FDA, we have proposed to the agency that we conduct two separate Phase 3 studies, each of which would involve approximately 200 evaluable patients with either melanoma or breast cancer. We expect the study protocol to provide for patients in these trials to receive both **Lymphoseek** and a non-radiopharmaceutical agent that is currently used as a marker in lymphatic mapping procedures. Our discussions with FDA also suggest that the Phase 3 trials will be structured to 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**.

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We will hold an end of Phase 2 meeting with FDA before the Phase 3 trials can be initiated. This will likely mean that, although we continue to project that the Phase 3 trials will commence during the fourth quarter of 2007, it will likely be closer to the end of the year than previously thought. We plan to have approximately 35 participating institutions in each Phase 3 trial, which should enable us to enroll patients at a more rapid rate than we experienced with the Phase 2 study. Our goal is to file the new drug application for Lymphoseek during the second half of 2008, which 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 2009.

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. In addition, Neoprobe has discussed the drug approval and registration process through the centralized European drug evaluation procedures with the European Medicinal Evaluation Agency (EMA) in London. We plan to use the results from the Phase 3 clinical evaluation of **Lymphoseek**, which we currently intend to include sites in the EU, to support the drug registration application process with the EMA. 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}I , a 27–35 KeV emitting isotope. The MAb used in **RIGScan CR** is the CC49 MAb developed by the NCI and 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 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.

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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 EMEA 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

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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 I 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 I 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 I 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. 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 protocol assessment and completing a final protocol review. At present, we plan to submit a clinical development plan for **RIGScan** CR to FDA and to request a meeting to review the development plan and clinical protocol as part of the development plan in the fourth quarter of 2007. The clinical protocol envisioned would involve approximately 300 patients in a randomized trial of patients with 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

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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. 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 for the **RIGS** technology and do not know if a partner will 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 I 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.

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. The means by which this funding is obtained will 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 additional funding, on terms acceptable to us, or at all.

In addition, although the prospects for ACT may be improved depending on the outcome of a decision 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. 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.

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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 responsible for over 500,000 deaths annually 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 2006 at \$206.3 billion: \$78.2 billion for direct medical costs, \$17.9 billion for indirect morbidity, and \$110.2 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 to the ACS, are expected to account for 12% and 4%, respectively, of new cancer cases in the U.S. in 2006.

The NIH has estimated that breast cancer will annually affect approximately 500,000 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. According to the ACS, nearly 181,000 new cases of invasive breast cancer were expected to be diagnosed and approximately 41,000 women were expected to die from the disease during 2007 in the U.S. alone. The incidence of breast cancer 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. Thus, we believe that the significant aging of the population, combined with improved education and awareness of breast cancer and diagnostic methods, will 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 currently treat the majority of breast cancer patients. Over 10,000 hospitals are located in the markets targeted for our gamma detection SLNB products. While we are aware of no published statistics on the number of institutions that are currently using gamma detection devices in SLNB, we believe that approximately 50% of the total potential global market for gamma detecting devices remains to be penetrated at this time. However, 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 \$200 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 154,000 new incidences of colon and rectal cancers will occur in the U.S. in 2007. 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 \$3 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.

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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 over 6.3 million inpatient cardiovascular procedures in the U.S. during 2004 with a primary diagnosis of cardiovascular disease. In the U.S. in 2004, the NCHS estimates that there were 427,000 coronary artery bypass surgeries performed on 249,000 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 \$431 billion in 2007. A substantial portion of these expenditures is expected to be for non-invasive image and intravascular examination. We are focused on two distinct markets within the hospital setting for

Cardiosonix products:

intraoperative blood flow assessment (**Quantix/OR**); and

non-invasive diagnostic blood flow assessment (**Quantix/ND**).

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 Bluetooth wireless probes for a variety of applications. 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.

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We entered into our current 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 December 31, 2008. 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. 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

We recently executed a non-binding term sheet 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 reaching definitive terms with the potential U.S. distribution partner for **Lymphoseek** or in securing collaborative partners for other 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, 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 positive SPA is obtained. We anticipate continuing discussions for both **Lymphoseek** and **RIGScan CR** as we move forward with the clinical development for each product; however, we cannot assure you that we will be able to secure marketing and distribution partners for either product, or if secured, that such arrangements will result in significant sales of either product.

Blood Flow Measurement Devices

Both of our blood flow measurement devices, the **Quantix/ND** and **Quantix/OR** have 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 thus far in 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. Despite the greater number of leads we have generated over the last year, the results of our efforts to close on these leads has thus far been disappointing. We continue to investigate alternative pricing strategies such as per-use fees or leasing that may affect the adoption rates for our blood flow measurement devices. As a result, we anticipate that the product development and market support costs we will incur in 2007 will be greater than the revenue we generate from the sales of blood flow devices. We continue to evaluate our outlook for our blood flow business but believe the coming quarters are important to demonstrating the ultimate viability of this product line.

Table of Contents**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 Bluetooth 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 with eV, they have 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 original term of this agreement expired in February 2007 but was automatically extended through February 2008. 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 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 Biopharmaceutical Corporation (Reliable) has produce the basic chemical compound and Catalent Pharma Solutions (Catalent), formerly a 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 vialled 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 have yet to be 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.

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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** 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 be able to 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.

Table of Contents*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 (distributed by GE Healthcare), 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 a large corporation or privately held corporations, whose sales revenue or volume data is, therefore, 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 (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 lymphatic tissue 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 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 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.

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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 these markets, the following companies compete most directly with Cardiosonix: Transonic Systems, Inc., Medi-Stim AS, and Carolina Medical, Inc.

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 SLNB 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.

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.

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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. See Risk Factors.

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.

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.

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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/ND** device in the U.S. and EU for non-invasive applications. The **Quantix/OR** has also received CE Mark clearance to market in the EU and 510(k) clearance to market in the U.S. Our distribution partners in certain foreign markets other than the EU are seeking marketing clearances, as required, for both the **Quantix/ND** and **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

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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.

Employees

As of September 14, 2007, we had 20 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 \$7,900 during 2007. 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.

OUR MANAGEMENT

Directors, Executive Officers, Promoters and Control Persons

Directors

Directors whose terms continue until the 2008 Annual Meeting:

Carl J. Aschinger, Jr., age 68, 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 and Chief Executive Officer 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 Sr. 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. 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.

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Fred B. Miller, age 68, 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 65, 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 65, 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 55, 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

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Association, a nationally chartered bank holding company, where he was in charge of commercial 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.

Director Independence

Our Board of Directors has adopted the definition of independence as described under Section 301 of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley), 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.

Executive Officers

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

Name	Age	Position
Anthony K. Blair	47	Vice President, Manufacturing Operations
Rodger A. Brown	56	Vice President, Regulatory Affairs and Quality Assurance
Brent L. Larson	44	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 and Chief Financial Officer of our company since February 1999. 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.

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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. 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

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 Executive Officers) for the last two fiscal years.

Name and Principal Position	Year	Salary	(a) Bonus	(b) Option Awards	(c) All Other Compensation	Total Compensation
Carl M. Bosch (d) Vice President, Research and Development	2006	\$ 160,000	\$ 6,000	\$ 16,175	\$ 4,558	\$ 186,733
	2005	149,000	7,500		4,107	160,607
David C. Bupp President and Chief Executive Officer	2006	\$ 305,000	\$ 20,000	\$ 60,006	\$ 8,099	\$ 393,105
	2005	290,000	45,000		7,789	342,789
Brent L. Larson Vice President, Finance and Chief Financial Officer	2006	\$ 160,000	\$ 5,000	\$ 16,175	\$ 4,576	\$ 185,751
	2005	149,000	7,500		4,113	160,613

(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 123(R). Assumptions made in the valuation of stock option awards are disclosed in Item 1(l) of the Notes to the Consolidated Financial Statements in our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2006. Prior to 2006, the company accounted for stock option awards under APB Opinion No. 25's intrinsic value method and, as such, generally recognized no compensation cost for employee stock options.

- (c) Amount represents life insurance premiums paid during the fiscal year for the benefit of the Named Executive

Officers 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.

- (d) On April 25,
2007, Carl M.
Bosch resigned
as an officer of
the company.

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The following table presents certain information concerning outstanding equity awards held by the Named Executive Officers as of December 31, 2006.

Name	Number of Securities Underlying Unexercised Options (#)		Option Exercise Price	Option Expiration Date	Note
	Exercisable	Unexercisable			
Carl M. Bosch	10,000		\$1.50	9/28/2008	(b),(n)
	20,000		\$1.25	2/11/2009	(c),(n)
	45,000		\$0.50	1/4/2010	(d),(n)
	45,000		\$0.41	1/3/2011	(e),(n)
	50,000		\$0.42	1/7/2012	(f),(n)
	40,000		\$0.14	1/15/2013	(g),(n)
	30,000		\$0.13	2/15/2013	(h),(n)
	46,667	23,333	\$0.30	1/7/2014	(i),(n)
	33,333	16,667	\$0.49	7/28/2014	(j),(n)
	33,333	16,667	\$0.39	12/10/2014	(k),(n)
	26,667	13,333	\$0.26	12/27/2015	(l),(n)
		50,000	\$0.27	12/15/2016	(m),(n)
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)
	100,000	50,000	\$0.30	1/7/2014	(i)
	100,000	50,000	\$0.49	7/28/2014	(j)
	133,333	66,667	\$0.39	12/10/2014	(k)
	133,333	66,667	\$0.26	12/27/2015	(l)
	300,000	\$0.27	12/15/2016	(m)	
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)
	46,667	23,333	\$0.30	1/7/2014	(i)
	33,333	16,667	\$0.49	7/28/2014	(j)
	33,333	16,667	\$0.39	12/10/2014	(k)
	26,667	13,333	\$0.26	12/27/2015	(l)
		50,000	\$0.27	12/15/2016	(m)

(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 7/28/2004 and vest as to

one-third on each of the first three anniversaries of the date of grant.

(k) Options were granted 12/10/2004 and vest as to one-third on each of the first three anniversaries of the date of grant.

(l) 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.

(m) Options were granted 12/15/2006 and vest as to one-third on each of the first three anniversaries of the date of grant.

(n) On April 25, 2007, Carl M. Bosch submitted his resignation as an officer of the company, to be effective May 10, 2007. Under the terms of the Plans, all

unexercised
options are
forfeited as of
the date of
termination. All
of these options
have therefore
expired.

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Employment and Other Compensation Agreements

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

David C. 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.

The Board of Directors 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 Compensation, Nominating and Governance 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 or compensation have materially diminished, a material adverse change occurs in his working conditions or we breach the agreement;

then, Mr. Bupp will be paid a severance payment of \$762,500 (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

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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.

Brent L. Larson

Employment Agreement. Brent L. 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.

The Compensation, Nominating and Governance 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 Compensation, Nominating and Governance 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. Larson is concurrently or subsequently terminated:

by our company without cause (cause is defined as any willful breach of a material duty by Mr. Larson 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. Larson's employment agreement; or

by the resignation of Mr. Larson because his title, authority, responsibilities or compensation have materially diminished, a material adverse change occurs in his working conditions or we breach the agreement;

then, Mr. Larson will be paid a severance payment of \$340,000 and will continue his benefits for the longer of twelve (12) months or the remaining term of his employment agreement.

For purposes of Mr. Larson'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

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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. 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. If Mr. Larson is terminated without cause, his benefits will continue for the longer of twelve (12) months or the full term of the agreement.

Carl M. Bosch

Employment Agreement. Carl M. Bosch was employed under a twenty-four (24) month employment agreement effective January 1, 2007. The employment agreement provided for an annual base salary of \$170,000. On April 25, 2007, Mr. Bosch submitted his resignation as an officer of the company.

The Compensation, Nominating and Governance Committee reviewed the performance of our company and of Mr. Bosch on an annual basis and paid a bonus to Mr. Bosch as we deemed appropriate, in our discretion. Such review and bonus was consistent with any bonus plan adopted by the Compensation, Nominating and Governance Committee that covers the executive officers of our company generally.

The terms of Mr. Bosch's employment agreement were substantially identical to those of Mr. Larson's employment agreement.

Compensation of Directors

Non-employee directors received a quarterly retainer of \$3,000 and earned \$1,000 per board meeting attended in person or \$500 per telephonic board meeting. The Chairman of the Board and the Chairman of the Audit Committee each received an additional quarterly retainer of \$1,250 for their services in those capacities during 2006. The Chairman of the Audit Committee also earned an additional \$500 per Audit Committee meeting attended in person or \$250 per telephonic Audit Committee meeting. In addition, members of the Audit Committee received a quarterly retainer of \$625 and earned \$250 per Audit Committee meeting attended, whether in person or telephonically. We also reimbursed non-employee directors for travel expenses for meetings attended during 2006.

Each non-employee director also received 20,000 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. Directors who are also officers or employees of Neoprobe do not receive any compensation for their services as directors.

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The following table sets forth certain information concerning the compensation of Directors for the fiscal year ended December 31, 2006.

Name	(a) Fees Earned or Paid in Cash	(b) Option Awards	Total Compensation
Carl J. Aschinger, Jr. (c)	\$ 19,750	\$ 9,099	\$ 28,849
Reuven Avital (d)	20,250	9,099	29,349
Kirby I. Bland, M.D. (e)	17,000	9,988	26,988
Julius R. Krevans, M.D. (f)	21,500	10,366	31,866
Fred B. Miller (g)	23,500	10,366	33,866
J. Frank Whitley, Jr. (h)	20,250	9,099	