NEOPROBE CORP
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PROSPECTUS

NEOPROBE CORPORATION

32,350,000 Shares of Common Stock

This prospectus relates to the sale of up to 32,350,000 shares of our common stock by persons who have purchased shares of our common stock or who may purchase shares of our common stock through the conversion of debt or the exercise of warrants as more fully described herein. The aforementioned persons are sometimes referred to in this prospectus as the selling stockholders. The prices at which the selling stockholders 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 the selling stockholders.

Our common stock is quoted on the Nasdaq Over-The-Counter Bulletin Board under the symbol NEOP. On January 11, 2005, the last reported sale price for our common stock as reported on the Nasdaq Over-The-Counter Bulletin Board was $0.54 per share.

Each selling stockholder may be deemed to be 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 January 12, 2005

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UNLESS OTHERWISE SPECIFIED, THE INFORMATION IN THIS PROSPECTUS IS SET FORTH AS OF JANUARY 12, 2005, AND WE ANTICIPATE THAT CHANGES IN OUR AFFAIRS WILL OCCUR AFTER SUCH DATE. WE HAVE NOT AUTHORIZED ANY PERSON TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS, OTHER THAN AS CONTAINED IN THIS PROSPECTUS, IN CONNECTION WITH THE OFFER CONTAINED IN THIS PROSPECTUS. IF ANY PERSON GIVES YOU ANY INFORMATION OR MAKES REPRESENTATIONS IN CONNECTION WITH THIS OFFER, DO NOT RELY ON IT AS INFORMATION WE HAVE AUTHORIZED. THIS PROSPECTUS IS NOT AN OFFER TO SELL OUR COMMON STOCK IN ANY STATE OR OTHER JURISDICTION TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER.

PROSPECTUS SUMMARY

The following summary highlights selected information from this prospectus and may not contain all the information that is important to you. To understand our business and this offering fully, you should read this entire prospectus carefully, including the financial statements and the related notes beginning on page F-1. When we refer in this prospectus to the "company," "we," "us," and "our," we mean Neoprobe Corporation, a Delaware corporation, together with our subsidiary. This prospectus contains forward-looking statements and information relating to Neoprobe Corporation. See Cautionary Note Regarding Forward Looking Statements on page 14.

OUR COMPANY

We are a biomedical technology company providing innovative surgical and diagnostic products that enhance patient care by meeting the critical decision-making needs of healthcare professionals. 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. The address of our website is www.neoprobe.com. Information on our website is not part of this prospectus.

From our inception through the end of 2001, we devoted substantially all of our efforts and resources to the research and clinical development of innovative systems for the intraoperative diagnosis and treatment of cancers. Following an evaluation of our business plan during early 2001, however, we determined that we needed to expand our product portfolio and consider synergistic products outside the cancer or oncology fields.

In December 2001, we acquired Biosonix Ltd., a private Israeli company limited by shares. In February 2002, Biosonix Ltd. changed its name to Cardiosonix Ltd. (Cardiosonix). Cardiosonix is developing and commercializing a unique line of blood flow measurement devices for a variety of diagnostic and surgical applications. The decision to expand beyond our product focus on oncology was based on our belief that the Cardiosonix products would diversify our customer base through a product line we believe has great market potential and a path of market adoption similar to our gamma detection devices, but one that also has

significant operational synergies in the development, regulation and manufacture to that of our existing gamma devices.

Although we have expanded our strategic focus to include blood flow medical devices, we intend to continue to execute many of the strategies outlined in prior years related to the internal development of gamma detection medical devices and to continue supporting development of our other complementary procedural-based technologies. Based upon information that we have recently become aware of, we are considering reactivating development activities concerning radioimmuguided surgery (RIGS(R)). In addition, we are preparing to begin the pivotal stage in the development of our proprietary lymphatic tracing agent, LymphoseekTM.

Our business goals are to maximize the market potential of Cardiosonix' blood flow products as leaders in the measurement of blood flow in both clinical and surgical settings to supplement our leadership position in the current intraoperative gamma detection market. We believe our core device business lines will provide us with a strong operating foundation and enable us to judiciously evaluate and develop complementary procedural products with a recurring revenue stream. To that end, we intend to continue to pursue the development of Lymphoseek and to evaluate an appropriate development plan for RIGS.

THE OFFERING

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued Mr. Bupp warrants, expiring in April 2008, to purchase 375,000 shares of our common stock at an exercise price of $0.13 per share. Interest accrued on the note at the rate of 8.5% per annum, payable monthly, and the note was due on June 30, 2004. On March 8, 2004, the due date of the note to Mr. Bupp was extended to June 30, 2005. In exchange for extending the due date of the note, we issued Mr. Bupp an additional warrant, expiring in March 2009, to purchase 375,000 shares of our common stock at an exercise price of $0.50 per share. The shares covered by this prospectus include the 375,000 shares of common stock issuable pursuant to the warrants granted to Mr. Bupp in March 2004.

On December, 13, 2004, we completed a Securities Purchase Agreement for the purchase of convertible promissory notes in an aggregate principal amount of $8.1 million with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC. The notes will bear interest at 8% per annum and are freely convertible into shares of our common stock at a price of $0.40 per share. In addition to the notes, we also issued five-year warrants to Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp to purchase an aggregate 10,125,000 shares of our common stock at an exercise price of $0.46. The shares covered by this prospectus include 20,250,000 shares of common stock issuable upon conversion of the notes, and the 10,125,000 shares of our common stock issuable upon the exercise of the warrants.

During 2004 we engaged the services of two investment banking firms to assist us in raising capital, Roth Capital Partners, LLC (Roth) and Laidlaw & Co. (Laidlaw). In exchange for the services of Roth, we agreed to pay $320,000 in cash, plus warrants to purchase 800,000 shares of our common stock. The warrants have an exercise price of $0.46 per share. In exchange for the services of Laidlaw, we agreed to pay $320,000 in cash, plus warrants to purchase 800,000 shares of our common stock. The warrants have an exercise price of $0.46 per share. This prospectus covers the resale of the shares of common stock issuable

upon the exercise of the investment bankers' warrants.

All warrants issued in connection with the December 2004 transaction expire in December 2009. This prospectus covers the resale of shares of common stock issuable upon conversion of the convertible promissory notes, warrants issued to Mr. Bupp in exchange for extending the due date of the note executed in his favor in connection with the April 2003 bridge loan agreement, and the shares of common stock issuable pursuant to the warrants granted to the parties to the Securities Purchase Agreement and the placement agents and their assignees.

AN INVESTMENT IN OUR COMMON STOCK IS HIGHLY SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK. SEE RISK FACTORS BEGINNING ON PAGE 4.

RISK FACTORS

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

WE HAVE SUFFERED SIGNIFICANT OPERATING LOSSES FOR SEVERAL YEARS IN OUR HISTORY AND WE MAY NOT BE ABLE TO AGAIN ACHIEVE PROFITABILITY.

We had an accumulated deficit of approximately $124 million as of September 30, 2004. Although we were profitable in 2000 and in 2001, we incurred substantial losses in the years prior to that, and in 2002 and 2003. 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 operating expenses in the foreseeable future, primarily related to the completion of development and commercialization of the Cardiosonix product line but also potentially related to RIGS and Lymphoseek. 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 MAY NOT ACHIEVE THE BROAD MARKET ACCEPTANCE THEY NEED IN ORDER TO BE A COMMERCIAL SUCCESS.

Widespread use of our gamma detection devices is currently limited to a surgical procedure (ILM) used in the treatment and diagnosis of two primary types of cancer: melanoma and breast cancer. The success of our gamma detection devices greatly depends on the medical community's acceptance of ILM, and on our devices for use in ILM as a reliable, safe and cost effective alternative to current treatments and procedures. The adoption rate for ILM appears to be leveling off and may not meet our growth expectations. Although we continue to believe that ILM has significant advantages over other currently competing procedures, broad-based clinical adoption of ILM will likely not occur until after the completion of ongoing international trials related to breast cancer. Even if the results of these trials are positive, we cannot assure you that ILM will attain rapid and widespread acceptance. 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.

Our future success now also greatly depends on the success of the Cardiosonix product line. Cardiosonix' products are just beginning to be marketed commercially. The market for these products is in an early stage of development and may never fully develop as we expect. The long-term commercial success of the Cardiosonix product line will require widespread acceptance of our products as safe, efficient and cost-effective. Widespread acceptance would represent a significant change in 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.

CLINICAL TRIALS FOR OUR 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. Our most advanced product candidates, Lymphoseek and RIGScan(R) CR are preparing to enter the Phase III stage of clinical trials. 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, our collaborative partners or the FDA might delay or halt any clinical trials for our product candidates for various reasons, including:

- ineffectiveness of the product candidate;
- discovery of unacceptable toxicities or side effects;
- development of disease resistance or other physiological factors;
- delays in patient enrollment; or
- other reasons that are internal to the businesses of our potential collaborative partners, which reasons they may not share with us.

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

WE RELY ON THIRD PARTIES FOR THE WORLDWIDE MARKETING AND DISTRIBUTION OF OUR GAMMA DETECTION 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. 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 gamma detection devices. If this happens, we may not be able to successfully market our products, which would decrease our revenues.

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 do not currently have collaborative agreements covering Lymphoseek or RIGScan CR. We cannot assure you that we will be successful in securing collaborative partners, 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 DO NOT HAVE EXPERIENCE IN MARKETING BLOOD FLOW DEVICES AND WE HAVE NOT YET ESTABLISHED LONG-TERM STRATEGIC RELATIONSHIPS WITH A SIGNIFICANT NUMBER OF POTENTIAL MARKETING PARTNERS.

We completed the Cardiosonix acquisition on December 31, 2001, and to date we have limited marketing and distribution experience with the Quantix(R) line of blood flow products covering only a limited number of countries. We believe the adoption path for Cardiosonix' products will be similar to that of our gamma detection devices, but we have no direct experience in marketing or selling

blood flow measurement devices and will likely be working with pricing structures such as per-use or leasing with which we have little direct experience. Further, we may not be successful in creating the necessary infrastructure, either internally or through third parties, to support the successful marketing and sales of Cardiosonix products.

WE MAY HAVE DIFFICULTY RAISING ADDITIONAL CAPITAL, WHICH COULD DEPRIVE US OF NECESSARY RESOURCES.

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

may not be willing or allowed to purchase it or may demand steep discounts. Sufficient additional financing may not be available to us or may be available only on terms that would result in further dilution to the current owners of our common stock. At current market prices, the limited number of shares we have available to sell severely limits our ability to use equity as a method of raising capital. If we are unable to raise additional funds when we need them, we may have to severely curtail our operations.

OUR RADIOPHARMACEUTICAL PRODUCTS 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 product candidates, which could cause our business to be severely harmed. Our product candidates are subject to extensive and rigorous government regulation. The 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 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 approval requires the submission of extensive preclinical and clinical data and supporting information to the 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 applicable 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 similar risks to those associated with FDA approval process.

OUR 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 approval 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 approval, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion and record keeping related to the product will remain subject to extensive regulatory requirements. We may be slow to adapt, or we may never adapt, to changes in existing regulatory requirements or adoption of new regulatory requirements.

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

- restrictions on the products, manufacturers or manufacturing processes;
- warning letters;
- civil or criminal penalties;
- fines;
- 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.

UNFAVORABLE PRICING REGULATIONS, THIRD-PARTY REIMBURSEMENT PRACTICES OR HEALTHCARE REFORM INITIATIVES APPLICABLE TO OUR 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 delay the commercial launch of the product and may negatively impact the revenues we are able to derive from sales in that country.

WE MAY BE UNABLE TO ESTABLISH THE PHARMACEUTICAL MANUFACTURING CAPABILITIES NECESSARY TO DEVELOP AND COMMERCIALIZE OUR POTENTIAL PRODUCTS.

We do not have our own manufacturing facility for the manufacture of the radiopharmaceutical compounds necessary for clinical testing or commercial sale. We intend to rely in part on third-party contract manufacturers to produce sufficiently large quantities of drug materials that are and will be needed for clinical trials and commercialization of our potential products. Third-party manufacturers may not be able to meet our needs with respect to timing, quantity

or quality of materials. If we are unable to contract for a sufficient supply of

needed materials on acceptable terms, or if we should encounter delays or difficulties in our relationships with manufacturers, our clinical trials may be delayed, thereby delaying the submission of product candidates for regulatory approval and the market introduction and subsequent commercialization of our potential products. Any such delays may lower our revenues and potential profitability.

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

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 United States Securities and Exchange Commission (SEC) under which the investors may resell common stock acquired in these transactions, as well as common stock acquired on the exercise of the warrants and convertible securities held by them, to the public. We have also filed a registration statement covering the resale of common stock issued to former stockholders of Cardiosonix in connection with our acquisition of that business.

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 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 this prospectus, 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 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 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 regulations 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 EES for gamma devices contains failure to supply provisions, which, if triggered, could have a significant negative impact on our business.

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 ARE IN A HIGHLY REGULATED BUSINESS AND COULD FACE SEVERE PROBLEMS IF WE DO NOT COMPLY WITH ALL REGULATORY REQUIREMENTS IN THE GLOBAL MARKETS IN WHICH OUR PRODUCTS ARE SOLD.

FDA regulates our products in the United States. Foreign countries also subject our products to varying government regulations. In addition, such 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 of Cardiosonix' products, the Quantix/ND(TM) and Quantix/OR(TM). We may not be able to obtain clearance to market for 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.

OUR INTELLECTUAL PROPERTY MAY NOT HAVE OR PROVIDE SUFFICIENT LEGAL PROTECTIONS AGAINST INFRINGEMENT OR LOSS OF TRADE SECRETS.

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

In the United States, patent applications are secret until patents issue, 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.

CONDITIONS IN ISRAEL MAY AFFECT THE OPERATIONS OF CARDIOSONIX AND MAY LIMIT OUR ABILITY TO COMPLETE DEVELOPMENT OF ITS PRODUCTS.

Our Cardiosonix subsidiary is incorporated in Israel, and its offices and research and development facilities are located there. In concert with the plan to transfer or manufacturing of the Quantix products to a contract manufacturer located in the United States, certain manufacturing and development activities underway in Israel have been or will be curtailed or discontinued. While we have reduced our activities in Israel, continued adverse political, economic and military conditions in Israel may directly affect our operations. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors and a state of hostility, varying in degree and intensity, has led to security and economic problems for Israel. Despite past progress towards peace between Israel and its Arab neighbors, the future of these peace efforts is uncertain. Any armed conflict, political instability or continued violence in the region could have a negative effect on the activities of Cardiosonix and the completion of development and commercialization of our blood flow monitoring products.

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. The OCS issued a letter to Neoprobe in December 2001, prior to the acquisition of Cardiosonix, consenting to the transfer of manufacturing as long as Neoprobe consented to the terms of the OCS statutes under Israeli law. As a result of our efforts to transfer a significant portion of the manufacture of our blood flow products out of Israel, we will likely be required to pay an increased amount of royalties, which may be up to 300% of the grant amount, depending on the manufacturing volume that is performed outside of Israel. 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.

OUR PRODUCT SALES MAY BE ADVERSELY AFFECTED BY HEALTHCARE PRICING REGULATION AND REFORM ACTIVITIES.

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.

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 developments 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.

RISKS OF SECURED INDEBTEDNESS

All of our material assets, except the intellectual property associated with our Lymphoseek and RIGS products under development, have been pledged as collateral for the $8.1 million in principal amount of our 8% Series A Convertible Notes due December 12, 2008 (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, interest and other charges on the Notes when due;
- we use the proceeds from the sale of the Notes only for permitted purposes;
- we nominate and recommend for election as a director a person designated by the holders of the Notes; o 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 achieve annual revenues on a consolidated basis of at least $5.4 million in 2005, $6.5 million in 2006, and $9 million in each year thereafter;
- we maintain a minimum cash balances of $4.5 million at the end of first 6 months of 2005, $4 million at the end of the second six months of 2005, and $3.5 million at the end of each 6 month period thereafter; and
- that we indemnify the purchasers of the Notes against certain liabilities.

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

- amending our organizational or governing agreements and documents, entering into any merger or consolidation, dissolving the Company or liquidating its assets, or acquiring all or any substantial part of the business or assets of any other person;
- engaging in transactions with any affiliate;
- entering into any agreement inconsistent with our obligations under the Notes and related agreements;

- incurring any indebtedness, capital leases, or contingent obligations outside the ordinary course of business;
- granting or permitting liens against or security interests in our assets;
- making any material dispositions of our assets outside the ordinary course of business;
- declaring or paying any dividends or making any other restricted payments; or
- making any loans to or investments in other persons outside of the ordinary course of business.

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

OUR COMMON STOCK IS TRADED OVER THE COUNTER, WHICH MAY DEPRIVE STOCKHOLDERS OF THE FULL VALUE OF THEIR SHARES.

Our common stock is quoted via the National Association of Securities Dealers' Over The Counter Bulletin Board (OTCBB). As such, our common stock may have fewer market makers, lower trading volumes and larger spreads between bid and asked prices than securities listed on an exchange such as the New York Stock Exchange or the Nasdaq Stock Market. These factors may result in higher price volatility and less market liquidity for the common stock.

A LOW MARKET PRICE MAY SEVERELY LIMIT THE POTENTIAL MARKET FOR OUR COMMON STOCK.

Our common stock is currently trading at a price substantially below $5.00 per share, subjecting trading in the stock to certain SEC rules requiring additional disclosures by broker-dealers. These rules generally apply to any non-NASDAQ equity security that has a market price share of less than $5.00 per share, subject to certain exceptions (a "penny stock"). Such rules require the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated therewith and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and institutional or wealthy investors. For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole market maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could discourage broker-dealers from effecting transactions in our common stock.

THE PRICE OF OUR COMMON STOCK HAS BEEN HIGHLY VOLATILE DUE TO SEVERAL FACTORS THAT WILL CONTINUE TO AFFECT THE PRICE OF OUR STOCK.

Our common stock has traded as low as $0.25 per share and as high as $1.11 per

share in the last twelve months. Some of the factors leading to the volatility include:

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

- fluctuations in our operating results;
- financing arrangements we may enter that require the issuance of a significant number of shares in relation to the number of shares currently outstanding;
- announcements of technological innovations or new products which we or our competitors make;
- FDA and/or international regulatory actions;
- developments with respect to patents or proprietary rights;
- 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.

Until recently, 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 twelve-month period ended December 20, 2004 was approximately 508,000 shares. Daily volume during that period ranged from 0 shares to 4.4 million shares.

OUR STOCKHOLDER RIGHTS PLAN, SOME PROVISIONS OF OUR ORGANIZATIONAL AND GOVERNING DOCUMENTS AND AN AGREEMENT WITH SELLING STOCKHOLDERS, 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 and Section 21E of the Exchange Act. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things:

- general economic and business conditions, both nationally and in our markets,
- our history of losses,
- our expectations and estimates concerning future financial performance, financing plans and the impact of competition,
- our ability to implement our growth strategy,
- anticipated trends in our business,
- advances in technologies, and
- other risk factors set forth under "Risk Factors" in this prospectus.

In addition, in this prospectus, we use words such as "anticipates," "believes," "plans," "expects," "future," "intends," and similar expressions to identify forward-looking statements.

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 stockholders. We will receive no proceeds from the sale of shares of common stock in this offering.

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 three fiscal years as reported by Reuters Limited. These quotations reflect inter-dealer prices, without retail markup, markdown or commission, and may not represent actual transactions.

	High	Low	Close
Fiscal Year 2004			
First Quarter	$ 1.10	$ 0.28	$ 0.90
Second Quarter	$ 1.11	$ 0.41	$ 0.60
Third Quarter	$ 0.60	$ 0.35	$ 0.53
Fourth Quarter through December 20, 2004	$ 0.61	$ 0.37	$ 0.59

Fiscal Year 2003			
First Quarter	$ 0.17	$ 0.10	$ 0.11
Second Quarter	$ 0.26	$ 0.10	$ 0.17
Third Quarter	$ 0.50	$ 0.14	$ 0.29
Fourth Quarter	$ 0.43	$ 0.24	$ 0.31
Fiscal Year 2002			
First Quarter	$ 0.55	$ 0.35	$ 0.38
Second Quarter	$ 0.42	$ 0.25	$ 0.28
Third Quarter	$ 0.30	$ 0.08	$ 0.12
Fourth Quarter	$ 0.31	$ 0.05	$ 0.13

As of December 20, 2004, we had approximately 827 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 is relevant. See Management's Discussion and Analysis of Financial Condition and Results of Operations below.

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 the Form SB-2 Registration Statement, 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 by meeting the critical decision-making needs of physicians. The December 2001 acquisition of Cardiosonix expanded our potential product offerings beyond the neo2000 gamma detection device which is marketed in the oncology arena into the area of blood flow measurement and cardiac care. Cardiosonix is in the process of developing and commercializing a unique line of proprietary blood flow monitoring devices for a variety of diagnostic and surgical applications and has received marketing

clearance for two of its products, Quantix/ND and Quantix/OR, in Europe and in the U.S. In addition to our medical device products, we have two radiopharmaceutical products, RIGScan CR and Lymphoseek, in the advanced phases of clinical development.

YEARS ENDED DECEMBER 31, 2003 AND 2002

RESULTS OF OPERATIONS

NET SALES AND MARGINS. Net sales increased $2.2 million, or 64%, to $5.6 million in 2003 from $3.4 million in 2002. Gross margins on net sales increased to 44%

of net sales for 2003 compared to 30% of net sales for 2002. During the third quarter of 2002, we recorded an inventory impairment charge of $214,000 related to our BlueTip probe product. This charge adversely affected our gross margins for 2002 by 7 percentage points.

Approximately $1.9 million of the increase in net sales was the result of increased revenue related to our gamma detection products with the remaining $245,000 generated from our blood flow products. We had only $59,000 in revenues from blood flow products during 2002. Of the increased revenue from gamma detection products, approximately 20% was due to increased prices realized on our neo2000(R) control unit and 14mm probes, with approximately 70% due to increased sales volumes of these products. The remaining 10% was due to various changes in other products and product mix. The price at which we sell our gamma detection products to Ethicon Endo-Surgery, Inc., (EES) is based on a percentage of the global average selling price (ASP) received by EES on sales of Neoprobe products to end customers, subject to a minimum floor price. The increase in gross margins was primarily due to the higher recorded revenue per gamma detection system combined with lower internal manufacturing costs as a result of headcount reductions during the third and fourth quarters of 2002 that contributed to lower average costs.

LICENSE AND OTHER REVENUE. License and other revenue for 2003 and 2002 included $800,000 from the pro-rata recognition of license fees related to the distribution agreement with EES and $146,000 and $520,000, respectively, from the reimbursement by EES of certain product development costs. License and other revenue in 2002 also included $218,000 from EES' waiver of certain warranty costs due from us in exchange for a release from contractual minimum purchase requirements.

RESEARCH AND DEVELOPMENT EXPENSES. Research and development expenses decreased $430,000, or 19%, to $1.9 million during 2003 from $2.3 million in 2002. The decrease was primarily due to $425,000 in lower compensation costs resulting from headcount reductions of gamma product line personnel in the third and fourth quarters of 2002, coupled with decreased use of external design consultants and decreased prototype expenses related to the blood flow product line. 2003 and 2002 also included $27,000 and $50,000, respectively, of license fees related to the Lymphoseek tracing agent.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES. Selling, general and administrative expenses decreased $165,000, or 5%, to $3.1 million during 2003 from $3.3 million during 2002. The decrease was primarily due to $232,000 in lower compensation costs resulting from headcount reductions of gamma product line personnel in the third and fourth quarters of 2002, offset by increases in certain overhead costs such as bad debts and insurance and increased selling, general and administrative expenses incurred in the operation and support of Cardiosonix. Selling, general and administrative expenses in 2003 and 2002 included $30,000 and $138,000, respectively, in impairment expense related to production equipment and intellectual property that we did not believe had ongoing value to our business. Selling, general and administrative expenses in 2002 also included $79,000 for the transfer of manufacturing of certain components of the neo2000 gamma detection system to UMM.

OTHER INCOME (EXPENSES). Other income decreased $217,000 resulting in other expenses of $188,000 during 2003 compared to other income of $29,000 during 2002. Other expenses during 2003 consisted primarily of interest expense, amortized discount on our notes payable and interest expense related to the financing of our accounts receivable. Other income during 2002 consisted primarily of interest income. Our interest income decreased because we maintained a lower balance of cash and investments during 2003 as compared to 2002.

NINE MONTHS ENDED SEPTEMBER 30, 2004 AND 2003

RESULTS OF OPERATIONS

NET SALES AND MARGINS. Net sales, primarily of our gamma detection systems, increased $230,000, or 6%, to $4.1 million during the first nine months of 2004 from $3.9 million during the same period in 2003. Gross margins on net sales increased to 59% of net sales for the first nine months of 2004 compared to 45% of net sales for the same period in 2003.

The increase in net sales was primarily a result of a $302,000 increase in gamma device sales and a $126,000 increase in gamma device service revenue, offset by a $198,000 decrease in sales of our blood flow measurement devices. We expect gamma device revenue for 2004 to be generally consistent with gamma device sales for 2003. During the fourth quarter of 2003 and the first half of 2004, we identified a market need for certain product enhancements to our blood flow measurement devices that we are in the process of implementing. As a result, our sales efforts will be affected until the enhancements can be launched, which we expect to occur in the fourth quarter of this year. We expect blood flow sales to begin to pick up during the first quarter of 2005.

The increase in gross margins was primarily due to decreases in the unit costs to manufacture our neo2000 control unit resulting from internal design changes and a lower cost structure at the new contract manufacturer. Cost of goods sold for 2004 included a $78,000 charge for inventory obsolescence primarily related to design changes in our Quantix product line.

LICENSE AND OTHER REVENUE. License and other revenue in the first nine months of 2004 and 2003 included $600,000 from the pro-rata recognition of license fees related to the distribution agreement with EES. License and other revenue in the first nine months of 2003 also included $146,000 from the reimbursement by EES of certain product development costs.

RESEARCH AND DEVELOPMENT EXPENSES. Research and development expenses increased $401,000 or 29% to $1.8 million during the first nine months of 2004 from $1.4 million during the same period in 2003. Research and development expenses in the first nine months of 2004 included approximately $270,000 in gamma detection drug development costs, $159,000 related to our gamma detection devices and $792,000 related to the Quantix products. This compares to expenses of $28,000, $39,000 and $899,000 in these relative segment categories in the same period in 2003. The changes in each segment were primarily due to (i) efforts to support the re-initiation of our RIGScan CR research effort and to move our development of Lymphoseek forward, (ii) development activities related to updated versions of our neo2000 control unit and detector probes, and (iii) the costs of product refinement activities related to the Quantix/OR offsetting cost savings from headcount reductions at our facility in Israel, respectively.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES. Selling, general and administrative expenses increased $131,000 or 6% to $2.4 million during the first nine months of 2004 from $2.2 million during the same period in 2003. The increase was primarily due to increases of $125,000 in marketing expenses related to the marketing activities in support of the launch of our Quantix line of blood flow products, $81,000 in increased wages and benefits, and $58,000 in professional services coupled with increased investor relations services costs and board meeting expenses, offset by decreases of $81,000 in depreciation and amortization expenses, $51,000 in consulting services as well as decreases in space costs and bad debt expense. Selling, general and administrative expenses in the first nine months of 2003 also included $30,000 in impairment of intellectual property that we did not believe had ongoing value to the business.

OTHER INCOME (EXPENSES). Other expenses increased $12,000 to $136,000 during the first nine months of 2004 from $123,000 during the same period in 2003. The primary reason for the increase was an increase in interest expense on debt financings entered into during 2003. Of this interest expense, $132,000 and $62,000 in the first nine months of 2004 and 2003, respectively, was non-cash in nature related to the amortization of debt discounts resulting from the warrants and beneficial conversion feature issued in connection with the underlying debt agreements. Other expenses during the first nine months of 2004 also included $17,000 in income related to miscellaneous refunds. Other expenses during the first nine months of 2003 included $30,000 in interest expense related to the factoring of our accounts receivable.

LIQUIDITY AND CAPITAL RESOURCES

OPERATING ACTIVITIES. Cash used in operations decreased $295,000 to $625,000 used during the first nine months of 2004 from $919,000 used during the same period in 2003. Working capital increased $1.4 million to $4.0 million at September 30, 2004 as compared to $2.5 million at December 31, 2003. The current ratio increased to 5.4:1 at September 30, 2004 from 2.6:1 at December 31, 2003. The increase in working capital was primarily related to cash generated from the sale of our common stock and the exercise of warrants combined with recognition of non-cash license fees related to our distribution agreement with EES.

Cash balances increased to $3.0 million at September 30, 2004 from $1.6 million at December 31, 2003, primarily due to the cash generated from the sale of our common stock and the exercise of warrants, offset by increased operating expenses during the first nine months of 2004.

Accounts receivable decreased to $746,000 at September 30, 2004 from $1.1 million at December 31, 2003. We expect receivable levels to continue to fluctuate over the remainder of 2004 as the level of accounts receivable is greatly dependent on the timing of purchases and payments by EES as well as the potential effect of sales of blood flow products.

Inventory levels decreased to $947,000 at September 30, 2004 as compared to $1.0 million at December 31, 2003. We expect inventory levels to increase over the remainder of 2004 as we re-establish our gamma device safety stock and build finished units of our blood flow products in preparation for broader distribution.

INVESTING ACTIVITIES. Cash used in investing activities remained constant at $84,000 during the first nine months of 2004 and 2003. Capital expenditures in the first nine months of 2004 were primarily related to purchases of technology infrastructure. Capital expenditures in the first nine months of 2003 were primarily purchases of production tools and equipment in preparation for the manufacture of our Quantix line of blood flow measurement devices. Capital needs for the remainder of 2004 are expected to be consistent with 2003.

FINANCING ACTIVITIES. Financing activities generated $2.1 million in cash in the first nine months of 2004 versus $725,000 provided during the same period in 2003.

On November 19, 2001, we entered into a common stock purchase agreement with an investment fund, Fusion Capital Fund II, LLC (Fusion) for the issuance and purchase of our common stock. Under the stock purchase agreement, Fusion committed to purchase up to $10 million of our common stock over a forty-month period that commenced in May 2002. A registration statement registering for resale up to 5 million shares of our common stock became effective on April 15, 2002. Under the terms of the agreement, we can request daily drawdowns, subject

to a daily base amount currently set at $12,500. The number of shares we are to issue to Fusion in return for that money is based on the lower of (a) the closing sale price for our common stock on the day of the draw request or (b) the average of the three lowest closing sales prices for our common stock during a twelve-day period prior to the draw request. However, no shares may be sold to Fusion at lower than a floor price currently set at $0.30, which may be reduced by us, but in no case below $0.20 without Fusion's prior consent. Upon execution of the common stock purchase agreement, we issued 449,438 shares of our common stock to Fusion as a commitment fee. During the second half of 2003, we sold Fusion a total of 473,869 shares of common stock and realized net proceeds of $143,693. We issued Fusion 6,462 shares of common stock for commitment fees related to the sales of our common stock to them during 2003. During the first nine months of 2004, we sold Fusion a total of 2,350,000 shares of common stock and realized net proceeds of $1,468,874. We also issued Fusion 66,129 shares of common stock for commitment fees related to the sales of our common stock to them during the first nine months of 2004.

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued a note to Mr. Bupp in the principal amount of $250,000. The note was secured by general assets of the company, excluding accounts receivable. In addition, we issued Mr. Bupp 375,000 warrants to purchase shares of our common stock at an exercise price of $0.13 per share, expiring in April 2008. The per share value of these warrants was $0.10 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.9%, volatility of 139% and no expected dividend rate. Interest accrues on the note

at 8.5% per annum, payable monthly, and the note was originally due on June 30, 2004. On March 8, 2004, at the request of the Board of Directors, Mr. Bupp agreed to extend the due date of the note from June 30, 2004 to June 30, 2005. In exchange for extending the due date of the note, we issued Mr. Bupp an additional 375,000 warrants to purchase our common stock at an exercise price of $0.50 per share, expiring in March 2009. The per share value of these warrants was $0.46 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.7%, volatility of 152% and no expected dividend rate. Mr. Bupp's 750,000 warrants remain outstanding. The note was repaid with proceeds from the $8.1 million convertible note financing that we closed in December 2004.

During April 2003, we also completed a convertible bridge loan agreement with an investor for an additional $250,000. In consideration for the loan, we issued a note to the investor in the principal amount of $250,000. The note was secured by general assets of the company, excluding accounts receivable. In addition, we issued the investor 500,000 warrants to purchase shares of our common stock at an exercise price of $0.13 per share, expiring in April 2008. The per share value of these warrants was $0.10 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.9%, volatility of 139% and no expected dividend rate. Under the terms of the agreement, the note bore interest at 9.5% per annum, payable monthly, was convertible into common stock and was due on June 30, 2004. During January 2004, the investor converted the entire balance of the note into 1.1 million shares of common stock according to the conversion terms of the agreement. The investor's 500,000 warrants remain outstanding.

During 2003, an investment banking firm, Alberdale Capital, LLC (Alberdale), assisted us in arranging an accounts receivable financing transaction. In exchange for Alberdale's services, we issued them warrants to purchase 78,261 shares of our common stock. During the first quarter of 2004, Alberdale

exercised these warrants on a cashless basis in exchange for 53,500 shares of common stock.

During October and November 2003, we executed common stock purchase agreements with third parties introduced to us by another investment banking firm, Rockwood, Inc., for the purchase of 12,173,914 shares of our common stock at a price of $0.23 per share for net proceeds of $2.4 million. In addition, we agreed to issue the purchasers warrants to purchase 6,086,959 shares of common stock at an exercise price of $0.28 per share and agreed to issue the placement agents warrants to purchase 1,354,348 shares of our common stock on similar terms. All warrants issued in connection with the transaction expire in October 2008. The per share value of these warrants was $0.31 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.2%, volatility of 151% and no expected dividend rate. During the first nine months of 2004, investors and placement agents who participated in this placement exercised warrants representing a total of 3,308,327 shares of common stock resulting in net proceeds of $865,563.

During December 2004, we completed a private placement of 8% Series A Convertible Notes due December 12, 2008 in an aggregate principal amount of $8.1 million with Biomedical Value Fund, L.P. (BVF), Biomedical Offshore Value Fund, Ltd. (BOVF) and David C. Bupp (Neoprobe's President and CEO) resulting in proceeds to us of approximately $7.4 million, net of investment banking and legal fees. BVF and BOVF are investment funds managed by Great Point Partners, LLC. The notes will bear interest at 8% per annum and are freely convertible into shares of our common stock at a price of $0.40 per share. We may force conversion of the notes prior to their stated maturity under certain circumstances. The conversion price represents the 10-day volume weighted average trading price of our common stock through December 10, 2004. The notes are callable by the holders in the event we do not meet certain revenue, cash balance and other covenants. As part of this transaction, we issued five-year warrants to the investors to purchase 10,125,000 shares of our common stock at an exercise price of $0.46. In connection with this financing, we have also issued warrants to purchase 1,600,000 shares of the Company's common stock to placement agents, containing substantially identical terms to the warrants issued to the note holders. Proceeds from the notes will be used primarily to fund late stage clinical development of our most advanced radiopharmaceutical agent, Lymphoseek, for the assessment of the spread of breast cancer and melanoma to the lymphatic system and to complete the commercial launch of Neoprobe's blood flow measurement products, the Quantix/OR and the Quantix/ND.

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 obtain milestone or development funds from potential development and distribution partners, regulatory actions by FDA and other international regulatory bodies, and intellectual property protection. We believe we have adequate capital to assure that we can properly support our current business goals and objectives through 2006. Our near-term priorities include preparation for Phase III clinical trials for two radiopharmaceutical products in our pipeline, RIGScan CR and Lymphoseek and the identification of a potential development partner to assist and fund RIGS development. In addition, we are moving forward with improvements to the Quantix products based on thought leader feedback received in the US and EU. We believe this will position us for improved commercial viability of the Quantix products by the beginning of 2005. We intend to fund the estimated $5 million development of Lymphoseek internally; however, the decision as to how much, if any, of the estimated total of $15

million in RIGS development costs to fund internally versus through a potential development partner has not yet been determined. We believe our recently completed convertible promissory note financing will provide us with adequate capital to complete the Phase III trial for Lymphoseek and should free up our existing capital to support some incremental development for RIGS and support the launch activities surrounding the Quantix products. However, the conversion features of the notes along with the warrants issued in the transaction have committed substantially all of our available shares of common stock. As such, we cannot assure you that we will be able to obtain additional authorized shares from our shareholders or that we will be able to raise capital, if such shares are approved, on terms acceptable to us, or at all. We also cannot assure you that we will be able to achieve significant product revenues from our current or potential new products. In addition, we cannot assure you that we will achieve profitability in 2005 or in the future.

CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

The following table presents our contractual obligations and commercial commitments as of December 31, 2003.

	PAYMENTS DUE BY PERIOD			
CONTRACTUAL CASH OBLIGATIONS	TOTAL	LESS THAN 1 YEAR	1 - 3 YEARS	4 - 5 YEARS
Capital Leases	$ 74,854(1)	$ 21,436	$ 36,616	$ 16,8
Operating Leases	283,916(2)	138,610	145,306	
Unconditional Purchase Obligations	2,147,220(3)	2,147,220	-	
Long-Term Debt	500,000	250,000(4)	250,000(5)	
Total Contractual Cash Obligations	$ 3,005,990	$ 2,557,266	$ 431,922	$ 16,8

(1) In February 2004, we entered into two (2) three-year capital lease agreements for office equipment. The lease payments total approximately $10,000 per year.

(2) In February 2004, we entered into a six-month operating lease agreement for storage space. The lease payments total approximately $17,000 in 2004.

(3) This amount represents purchases under binding purchase orders for which we are required to take delivery of the product under the terms of the underlying supply agreements going out approximately one year.

(4) In January 2004, Mr. Garlikov converted the entire balance of the note into 1.1 million shares of common stock according to the conversion terms of the agreement.

(5) In March 2004, the due date of the note to Mr. Bupp was extended to June 30, 2005 under the same terms.

CRITICAL ACCOUNTING POLICIES

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

REVENUE RECOGNITION RELATED TO NET SALES. We currently generate revenue primarily from sales of our gamma detection products; however, sales of blood flow products constituted approximately 1% of total revenues for the first nine months of 2004 and are expected to increase in the future. We generally recognize sales revenue related to sales of our products when the products are shipped and the earnings process has been completed. Our customers have no right to return products purchased in the ordinary course of business. 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. 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. 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.

IMPAIRMENT OR DISPOSAL OF LONG-LIVED ASSETS. We account for long-lived assets in accordance with the provisions of SFAS No. 144. 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 September 30, 2004, 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 the capitalized cost 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.

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.

Allowance for Doubtful Accounts. We maintain an allowance for doubtful accounts receivable to cover estimated losses resulting from the inability of our customers to make required payments. We determine the adequacy of this allowance by regularly reviewing our accounts receivable aging and evaluating individual customer receivables, considering customers' credit and financial condition, payment history and relevant economic conditions. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances for doubtful accounts may be required.

OTHER ITEMS AFFECTING FINANCIAL CONDITION

At December 31, 2003, we had U.S. net operating tax loss carryforwards and tax credit carryforwards of approximately $90.6 million and $4.3 million, respectively, available to offset or reduce future income tax liability, if any, through 2023. 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.

DESCRIPTION OF BUSINESS

DEVELOPMENT OF THE BUSINESS

We are a biomedical technology company providing innovative surgical and diagnostic products that enhance patient care by meeting the critical decision-making needs of healthcare professionals. 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 the end of 2001, we devoted substantially all of our efforts and resources to the research and clinical development of innovative systems for the intraoperative diagnosis and treatment of cancers. Following an evaluation of our business plan during early 2001, however, we determined that we needed to expand our product portfolio and consider synergistic products outside the cancer or oncology fields.

In December 2001, we acquired Biosonix Ltd., a private Israeli company limited by shares. In February 2002, Biosonix Ltd. changed its name to Cardiosonix Ltd. (Cardiosonix). Cardiosonix is developing and commercializing a unique line of blood flow measurement devices for a variety of diagnostic and surgical applications. The decision to expand beyond our product focus on oncology was based on our belief that the Cardiosonix products would diversify our customer base through a product line we believe has great market potential and a path of market adoption similar to our gamma detection devices, but one that also has significant operational synergies in the development, regulation and manufacture to that of our existing gamma devices.

Although we have expanded our strategic focus to include blood flow medical devices, we intend to continue to execute many of the strategies outlined in

prior years related to the internal development of gamma detection medical devices and to continue supporting development of our other complementary procedural-based technologies. Based upon information that we have recently become aware of, we are considering reactivating development activities concerning radioimmuguided surgery (RIGS(R)). In addition, we are preparing to begin the pivotal stage in the development of our proprietary lymphatic tracing agent, LymphoseekTM.

Our business goals are to maximize the market potential of Cardiosonix' blood flow products as leaders in the measurement of blood flow in both clinical and surgical settings to supplement our leadership position in the current intraoperative gamma detection market. We believe our core device business lines will provide us with a strong operating foundation and enable us to judiciously evaluate and develop complementary procedural products with a recurring revenue stream. To that end, we intend to continue to pursue the development of Lymphoseek and to evaluate an appropriate development plan for RIGS.

OUR TECHNOLOGY

GAMMA DETECTION DEVICES

Through the third quarter of 2004, 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 commercial markets.

Our patented gamma detection devices consist of hand-held detector probes and a control unit. The detection device in the tip of the probe is a highly radiosensitive crystal 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(R) 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 three major software upgrades for customer units designed to improve the utility of the system and/or offer the users additional features.

Surgeons are using our gamma detection devices in a surgical application referred to as sentinel lymph node biopsy (SLNB) or intraoperative lymphatic mapping (lymphatic mapping or ILM). ILM 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. ILM 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 two thousand 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 ILM 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 ILM have found that our gamma-detection probes are well suited to the procedure.

Lymphatic mapping has become the standard of care for treating patients with melanoma at many institutions. For breast cancer, the technique appears to be moving toward standard of care status at major cancer centers. Our marketing partner has seen continued growth in sales due partially to increased adoption of the ILM procedure and changes in the competitive landscape. Lymphatic mapping in breast cancer is the subject of national and international clinical trials, including studies sponsored by the U.S. Department of Defense, the National Cancer Institute (NCI) and the American College of Surgeons. Although we have been selling gamma detection devices for use in surgical oncology for over seven years, we believe many surgeons, both in the U.S. and the rest of the world have delayed adoption of lymphatic mapping pending the outcome of these important trials. We believe that once data from these trials are published; there will be an additional demand for our devices. We continue to monitor these trials and to work with our marketing partners and thought leaders in the surgical community to set up and support training courses internationally for lymphatic mapping. We also believe, based on anecdotal market intelligence, that over half of the potential global market for devices such as ours remains untapped. Courses showcasing our instruments continue to be held at many nationally and internationally renowned cancer-specializing and teaching institutions. These courses appear to be positively impacting the adoption of lymphatic mapping, albeit not as rapidly as we would like to see.

In addition to lymphatic mapping, surgeons are investigating the use of our device 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 in SLNB in gastric and non-small cell lung cancers. Expanding the application of ILM 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 software-based enhancements to the neo2000 platform as well as probes such as the laparoscopic probe introduced in 2002 that supports the minimally invasive emphasis in today's practice of surgery. To that end, our primary goals for our gamma device business for 2004 center around working with our marketing partners to improve the market position of our laparoscopic approach and increase awareness of independent research being done to expand the application of ILM to other indications.

BLOOD FLOW MEASUREMENT DEVICES

Accurate blood flow measurement is required for various clinical needs, including:

- real-time monitoring;
- intra-operative quantification;
- non-invasive diagnostics; and
- evaluation of cardiac function.

Currently, the medical community has no simple, immediate, real-time means to quantify the adequacy of organ perfusion, that is, the direct measurement of

blood flow into the organ. Devices do exist that visually show perfusion of a target organ. We are unaware, however, of any device that provides an accurate, real-time measurement of blood flow in as many applications without having to isolate target vessels or conduct other invasive procedures.

In addition, 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 is developing and commercializing the Quantix(R) line of products that employ a unique and proprietary Angle-independent Doppler Blood Flow (ADBF(TM)) technology that allows for blood flow volume and velocity readings. Most current applications of Doppler technology to blood flow measurement are angle-dependent and therefore more prone to estimation errors and potential inaccuracy. ADBF eliminates calculation estimation and permits real-time measurement of volume blood flow.

The ADBF 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 and one still in development that are designed to provide blood flow measurement and cardiac output information to physicians in cardiac/vascular surgery, neurosurgery and critical care settings.

Quantix/ND(TM) is designed to allow neurosurgeons and neurologists, as well as intensive care unit or emergency room physicians, to non-invasively measure carotid artery blood flow in a simple and real-time manner. Quantix/ND consists

of a control unit and an angle-independent 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 minimize the risk of brain impairment. We are unaware of any measurement system on the market today that provides real-time, bedside, non-invasive, continuous, direct and accurate measurements of complete hemodynamic parameters including blood flow. Other modalities that do monitor capabilities of the brain are significantly more invasive, expose the patient to incremental risk or are inherently complicated, offering only indirect estimation of perfusion conditions. Some medical devices use an estimated measurement of blood flow velocity to create an index of blood flow but do not account for instantaneous changes in vascular cross-sectional area. In most competing devices, however, blood flow velocity is angle-dependent and cannot be measured accurately. The Quantix/ND device, as well as its predecessor device, the FlowGuard(TM), 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/OR(TM) is designed to permit cardiovascular surgeons and assisting physicians to obtain intraoperative volume blood flow readings in various targeted blood vessels within seconds. The system consists of an 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 is crucial during anastomostic or other bypass graft procedures to determine adequate blood flow. While measurement is advisable whenever a blood vessel is exposed intra-operatively, generally this is not the current practice.

Ultimately, in practice, the surgeon generally resorts to using his 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 and simple; 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 "inflation" and strong palpations that could mislead the surgeon. Instead of such a subjective clinical practice that is highly experience-dependent, the Quantix/OR is designed to allow the surgeon to rely on more evidence-based medicine.

We believe that Quantix/OR represents a significant 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 multiple vessel measurements are required. They are, therefore, not used routinely in the operating room, so surgeons most often resort to finger palpation to qualitatively, rather than quantitatively, measure vessel perfusion. The Quantix/OR device has received CE mark regulatory clearance for marketing in the EU and FDA 510(k) clearance for marketing in the United States.

Quantix/TE(TM) is being designed as a transesophageal cardiac function monitor for measuring blood flow in the descending aorta in critical care settings. The system employs a special transesophageal catheter for quantitative assessment of blood flow in the descending aorta for cardiac output calculations. The system is designed for bedside use in intensive care settings. Cardiac output and function monitoring is essential in critical care and trauma patients. The procedure of transesophageal monitoring is a well-recognized clinical modality, particularly for echocardiography of the heart. Only highly invasive methods of cardiac output via thermodilution techniques are currently available, or indirect and non-invasive methods such as bioimpedance with an unknown degree of clinical significance. The Quantix/TE is still in the early stages of development and is not currently cleared for commercial sale in any market.

Our strategy related to Cardiosonix products for 2004 continues to emphasize the three primary objectives we established in 2003:

- to promote and expand the clinical evaluation of the Quantix/ND and Quantix/OR with thought leaders in the neurosurgical and cardiac arenas;
- to secure and train additional marketing and distribution partners for key global markets for the Quantix/ND and Quantix/OR devices; and

- to achieve commercial sales of Cardiosonix' Quantix products beyond demonstration unit sales that would demonstrate the initial market acceptance of the products.

We cannot assure you, however, that any of Cardiosonix' products will achieve market acceptance. See also 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. Our primary efforts in this area involve an exclusive worldwide license agreement with the University of California, San Diego (UCSD) for a proprietary compound we refer to as Lymphoseek. We believe Lymphoseek, if proven effective, could be used as a lymph node locating agent in ILM procedures. Neoprobe and UCSD completed pre-clinical evaluations of Lymphoseek in 2001 and completed a Phase I trial in the treatment of breast cancer in humans. The initial Phase I studies of Lymphoseek in breast cancer were funded through a research grant from the Susan G. Komen Breast Cancer Research Foundation. Preliminary results from the Phase I breast trial were presented at the Spring 2002 meeting of the Society of Nuclear Medicine.
A Phase I/II clinical trial in melanoma patients was completed during the third quarter of 2003. The Phase I/II melanoma trial was funded through a research grant from the American College of Surgeons. Our discussions held to date in the further development and commercialization of Lymphoseek have focused on gaining a better understanding of the regulatory approval process related to Lymphoseek. To that end, we held a meeting in November 2003 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. As a result of that meeting, we prepared and submitted a clinical protocol to FDA for a pivotal trial to support the marketing approval of Lymphoseek at the end of the third quarter of 2004. We are in discussion with the FDA regarding the final design of the trial and hope to commence the multi-center trials late in the first quarter of 2005. We cannot assure you, however, that this product will achieve regulatory approval, or if approved, that it will achieve market acceptance. See also 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, and to assist in more thorough removal of the cancer. 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(R) CR is an intraoperative radiodiagnostic agent consisting of a radiolabeled murine monoclonal antibody (MAb CC49). The radiolabel used is 125I,

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

Neoprobe conducted two Phase III studies, NEO2-13 and NEO2-14, of RIGScan CR in patients with colorectal cancer. 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 been undetected 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 European Agency for the Evaluation of Medicinal Products (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 its applications, we received requests for further information from FDA and from the European Committee for Proprietary Medicinal Products (CPMP) on behalf of the EMEA. Both FDA and EMEA acknowledged that our studies met the diagnostic endpoint of the Phase III 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. 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 review 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 also 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.

Over the last several years, we have held preliminary discussions with several parties potentially interested in continuing the RIGS development; however, only one of those discussions resulted in an arrangement that attempted to restart the development of RIGS. During 2000, we executed and amended an agreement with OncoSurg Ltd. (OncoSurg, formerly NuRIGS Ltd.), that provided OncoSurg with an option exercisable through December 31, 2001 to license the RIGS technology for use in the diagnosis and treatment of colorectal cancer. During 2001, OncoSurg conducted pre-clinical testing and sponsored a Phase I physician's Investigational New Drug (IND) clinical trial for colorectal cancer using a second-generation humanized version of our RIGScan CR antibody. However, OncoSurg did not exercise its option to continue development at the end of 2001 due to a lack of funding which we believe is unrelated to the clinical results of the Phase I trial. The physician-IND researchers reported favorable results of the Phase I trial during fourth quarter of 2003.

We recently obtained results of a third party's survival analysis suggesting 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 III RIGS trials who have independently conducted survival follow-up analyses to their own institution's RIGS trial patients with apparently favorable results relating to the long-term survival prognosis of patients who were treated with RIGS. In addition, we have recently 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 III 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. This meeting with FDA took place in April 2004.

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 RIGSscan 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 indicated that it would consider possible diagnostic/prognostic indications for RIGScan CR and that survival data from one of our earlier Phase III studies could be supportive of a prognostic indication. We believe that approval for a diagnostic indication prior to the submission of additional prognostic data from a new trial could positively impact the approval timeline for RIGScan CR. In June 2004 we submitted a Phase III protocol to FDA for their comment and review. The protocol included a proposed clinical plan that included a near term diagnostic endpoint for the study and a long term prognostic endpoint.

We have received a formal response from FDA to the Phase III protocol submitted in late June 2004. The response indicates that FDA would be receptive to a clinical trial design that would incorporate both near term disease progression and long term survival prognostic endpoints. Further, the response provides us with guidance for the development of the clinical data sheets and investigator training programs for the conduct of the Phase III study in primary colorectal patients as well as for the further development of the study design. We intend to request a meeting with FDA to review the Phase III study materials, to provide materials requested by FDA for diagnostic endpoints of the study and to prepare for the initiation of the Phase III study in 2005. In addition, we intend to meet with FDA to review the company's biologic and radio labeling production plans. It is possible that the regulatory pathway may evolve as we seek to reach a consensus with the agency on the reactivation of the RIGS filing.

If our plan for evaluating the survival data is received positively, we intend to engage the services of a clinical research organization (CRO) to review these survival findings related to all evaluable patients from our Phase III primary and metastatic colorectal cancer clinical trials. The analysis of this data may answer some of the questions raised by FDA in response to our original application; however, the RIGScan CR 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 a process for radiolabeling the CC49 antibody in order to meet the regulatory needs for the RIGScan CR product. We have met with the centralized European regulatory agency, the EMEA, to discuss development plans for RIGS. The EMEA indicated that they were receptive to a similar diagnostic and prognostic clinical plan that is being reviewed with FDA. In addition, the EMEA indicated that they would encourage us to conduct the next clinical study on the RIGS technology with the humanized version of the RIGSscan CR.

We are encouraged by the recent developments regarding RIGS. We believe we would need to obtain additional funding and/or identify a development partner in order to carry out all the activities necessary for commercialization. We do not have any agreements in place or pending with third parties that would ensure the

continued development of the RIGS process and the completion of the survival analysis proposed to FDA at the April 2004 meeting. In addition, 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 two years before we receive any significant product-related royalties or revenues. However, 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 cannot assure you that FDA or the EMEA will approve our RIGS products for marketing, or that any such products will be successfully introduced or achieve market acceptance. See also Risk Factors.

ACTIVATED CELLULAR THERAPY

We have performed early stage research on another technology platform, activated cellular therapy (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.

During the second quarter of 2001, we announced a research collaboration with Aastrom Biosciences, Inc. (Aastrom) intended to determine whether Aastrom's ReplicellTM system would be able to duplicate cell expansion results experienced in previous Phase I clinical testing of our ACT technology for oncology. Unfortunately, we experienced delays in completing the evaluation in 2001 due to a lack of available tissue for testing purposes and since that time have not had the funding available to move the research forward. From time to time, we have engaged investment banking firms as we did for the RIGS technology to assist us in identifying parties to license or purchase the ACT technology. However, these efforts have not resulted in the identification of a development partner, purchaser or licensee to date. We do not know if a partner will be identified on a timely basis, on terms acceptable to us, or at all. 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 without a partner. We cannot assure you that any ACT products will be successfully developed, tested or licensed, or that any such products will gain market acceptance. See also Risk Factors.

MARKET OVERVIEWS

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

CANCER MARKET OVERVIEW

Cancer is the second leading cause of death in the U.S. and Western Europe and is responsible for over half a million deaths annually in the U.S. alone. The NIH estimates the overall annual costs for cancer (the primary focus of our products) for the U.S. in the year 2003 at $189.5 billion: $64.2 billion for direct medical costs, $16.3 billion for indirect morbidity, and $109 billion for indirect mortality. Our line of gamma detection systems is currently used primarily in the application of ILM in breast cancer and melanoma which, according the American Cancer Society (ACS), are expected to account for 16% and 4%, respectively, of new cancer cases in the U.S. in 2004.

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 leading cause of death from cancer in the United States among the 30 million women between the ages of 40 and 55 and the second leading cause of death from cancer among all women. According to the ACS, over 200,000 new cases of invasive breast cancer are expected to be diagnosed and over 40,000 women are expected to die from the disease during 2004 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 ILM products. While we are aware of no published statistics on the number of institutions that currently are using gamma detection devices in ILM, we believe that approximately fifty percent 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 to also assist in the clinical evaluation and staging of solid tumor cancers and expanding ILM 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 approved, or if approved, that it will achieve the prices or sales we have estimated.

The ACS estimates that over 174,000 new incidences of colorectal and related cancers will occur in the U.S. in 2004. Based on an assumed recurrence rate of 40%, this would translate into total potential surgical procedures of over 240,000 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, depending on the reimbursement allowed for RIGScan CR, be in excess of $1 billion annually. However, we cannot assure you that RIGScan CR will be approved, or if approved, that it will receive the reimbursement or achieve the level of sales we have currently estimated.

BLOOD FLOW 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. In the U.S. alone, the Centers for Disease Control (CDC) estimated that there were over 65 million physician office visits and over 6.8 million outpatient department visits in 2000 with a primary diagnosis of cardiovascular disease. The CDC registered over 5.9 million inpatient cardiovascular procedures in the U.S. during 2000 that directly involve cardiovascular circulation. We, as well as our competitors and other industry analysts, generally estimate the rest of the world's incidence of such modalities at roughly twice U.S. estimates.

The American Heart Association estimates the total cost of cardiovascular

diseases and stroke in the United States will exceed $368.4 billion in 2004. A substantial portion of these expenditures is expected to be for non-invasive image and intravascular examination. In 1999, these modalities, employed in approximately 99 million diagnostic procedures, generated more than $2.4 billion worldwide in product sales. Industry analysts have also estimated the worldwide market for multi-functional patient monitoring equipment totaled $6.6 billion in 1999.

We have identified three distinct markets within the hospital setting for Cardiosonix' products:

- non-invasive diagnostics (Quantix/ND);
- intraoperative assessment (Quantix/OR); and
- critical care monitoring (Quantix/TE).

The American Hospital Association has estimated there are approximately 6,000 hospitals in the U.S., over half of which house one hundred beds or more (i.e., large hospitals). The American Association of Operating Room Nurses has estimated there are approximately 30,000 operating rooms in the U.S. Based on these estimates, information obtained from industry sources and data published by our competitors and other medical device companies, we estimate the worldwide totals for hospitals and operating rooms to be approximately two to two-and-a-half times the U.S. totals. In addition, the NCHS estimates that 516,000 cardiac bypass grafts were performed in the U.S. in 2001 on 305,000 patients.

Based on the above number of institutions and procedures, assuming the larger hospitals could use two or more systems of each type to support their activities, and assuming we are able to achieve market prices that are comparable to what our competitors are achieving (estimated at averaging $25,000 to $30,000 per system or up to $180 per procedural use), we believe the worldwide market potential for blood flow measurement products, such as those being developed by Cardiosonix, to be more than $1.5 billion. We believe that gaining even a modest share of this market would result in significant 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 and Johnson company. In Japan, however, we market our products through a pre-existing relationship with Century Medical, Inc. (CMI).

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 and a laparoscopic probe intended for certain minimally invasive procedures. We have also developed three major software version upgrades for the system that have been made available for sale to customers. We intend to continue developing additional ILM-related probes and instrument products in cooperation with EES to maintain our leadership position in the ILM field.

Physician training is critical to the use and adoption of ILM products by

surgeons and other medical professionals. Our company and our marketing partners have established relationships with leaders in the ILM 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 ILM training courses available to surgeons.

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. EES notified us, in March of 2004, of their desire to exercise their option for the first of the two-year term extensions, thus extending the term of our current agreement through December 31, 2006. Under this agreement, we manufacture and sell our ILM products almost exclusively to EES, who distributes the products globally (except for Japan). EES agreed to purchase minimum quantities of our products over the first three years of the five-year original term of the agreement and to reimburse us for certain research and development costs during the first three years and a portion of our warranty costs. EES' minimum purchase and reimbursement commitments were satisfied during 2002. 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 also Risk Factors.

GAMMA DETECTION RADIOPHARMACEUTICALS

Due to the recency of the reinvigoration of our development efforts related to RIGScan CR, we have not established a marketing or distribution channel for this product. We anticipate initiating such discussions following the establishment of a development timeline following our April 15, 2004 meeting with FDA. We have had initial discussions with parties who may be interested in marketing and distribution of Lymphoseek; however, such discussions to date have been preliminary in nature and have not resulted in any definitive arrangements at this time. We cannot assure you that we will be able to secure marketing and distribution partners for RIGS or Lymphoseek, 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 in the U.S. and the EU and certain other global markets. Our goal is to ensure sales and distribution coverage through third parties of substantially all of the U.S. and EU and selective markets in the rest of the world. To that end, we have put in place a master distributor arrangement covering the major markets in the EU and are working with a number of independent sales organizations to ensure coverage of major markets within the U.S. In addition, we have distribution arrangements in place covering major portions of the Pacific Rim and Central and South America.

We anticipate spending a significant amount of time and effort through the first quarter of 2005 to penetrate the end-user market. We will need to complete the training of our distributors and independent sales agents and work through them with thought leaders in the cardiac and neurosurgical fields to gain penetration at the end-user level. We anticipate placing some additional blood flow systems with industry thought leaders to obtain critical pre-commercialization feedback; however, we plan to continue working with the thought leaders already identified to promote publication in support of more widespread market launch. To date, we have placed a small number of devices with thought leaders in the U.S. and EU to support clinical investigations by their institutions. We are also investigating

different sales models that include both capital sales and per use or lease-type transactions. We expect the sales model will evolve over the initial months of sales. The market education process we envision will likely take some time to develop in the manner we desire. In addition, the sales cycle for capital medical devices such as our blood flow products is typically a four to six month cycle. As such, significant end customer sales, if they occur, will likely lag the signing of distribution arrangements.

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 also Risk Factors. The neo2000 system is comprised of a software-upgradeable neo2000 control unit, a hand-held gamma detection probe and some accessories. We currently market a 14mm reusable probe and a laparoscopic reusable probe.

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 and the laparoscopic probe 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). Currently, we have manufacturing and supply agreements with eV for the production of crystal modules used in the detector probes and for the manufacture of the 14mm probe and the neo2000 control unit at 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 expired on December 31, 2002, but was automatically extended through December 31, 2005; however, the agreement is no longer exclusive for the last three years. 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 October 2001, we entered into a manufacturing and supply agreement with UMM Electronics, Inc. (UMM) for the exclusive manufacture of our 14mm probe and neo2000 control unit. The original term of the agreement was to expire in February 2005; however, we terminated our relationship with UMM during the fourth quarter of 2003. In the process of evaluating contract manufacturers for the Quantix product line, we had identified a different contract manufacturer, TriVirix, and concluded that it would be financially and operationally beneficial to us to have the neo2000 and 14mm probe manufactured at the same location as the Quantix products.

In February 2004, we executed a Product Supply Agreement with TriVirix for the manufacture of the neo2000 and 14mm probe. We have now completed the transfer of the manufacturing for the neo2000 and 14mm probes to TriVirix. TriVirix began providing 14mm probes during February and the neo2000 control unit during March 2004 for shipment to EES.

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 also Risk Factors.

GAMMA DETECTION RADIOPHARMACEUTICALS

We are in the process of establishing biologic production and radiolabeling capabilities for RIGScan CR. 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 within the near future to accommodate the planned commencement of RIGScan CR clinical trials next year. We have also entered into a development agreement with a third party for the manufacture of Lymphoseek that will ensure adequate supply of the drug for the upcoming Phase III clinical trials. Further commercial supply and distribution agreements have yet to be negotiated. We cannot assure you that we will be successful in securing and/or maintaining the necessary biologic, product and/or radiolabeling capabilities.

BLOOD FLOW MEASUREMENT DEVICES

Currently, the Quantix products being distributed are being manufactured at Cardiosonix' facility in Israel. However, consistent with our stated objectives, we evaluated different contract manufacturers for the control unit portion of the Quantix product line during the first quarter of 2003 and solicited competitive bids. During the second quarter of 2003, we selected TriVirix to assemble the control unit portion of the Quantix line. In February 2004, we executed a Product Supply Agreement for the assembly of the blood flow control units with TriVirix; however, we are working with TriVirix to maintain some level of component sourcing from Israel that will satisfy our royalty requirements to the Israeli government (See Risk Factors). Assembly of the Quantix control units at TriVirix is expected to start during the first half of 2005. The ultrasound probes distributed with the Quantix control units, while currently assembled at Cardiosonix' facility, use ultrasound transducers manufactured by Vermon S.A. (Vermon) of France. We currently purchase ultrasound transducer modules and subassemblies from Vermon under purchase orders. We are in the process of evaluating subcontractors to manufacture the ultrasound probes and other accessories associated with the Quantix product line.

We cannot assure you that we will be able to finalize supply and service agreements with Vermon 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 also Risk Factors.

In addition, we determined that development of the Quantix line had progressed to the point where we did not need the number of development staff we had in order to support the final development phases and to support our commercialization efforts. As such, we reduced employment at our Cardiosonix subsidiary during the fourth quarter of 2003. We have entered into new employment arrangements with certain key personnel in Israel in order to continue to provide limited developmental and commercial support for the Quantix products.

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 also Risk Factors.

For our products, an important factor in competition is the timing of market introduction of our products or those of our competitors' products. Accordingly, the relative speed with which we can develop products, complete the regulatory

clearance processes and supply commercial quantities of the products to the market is an important competitive factor. We expect that competition among products cleared for marketing will be based on, among other things, product efficacy, safety, reliability, availability, price, and patent position.

GAMMA DETECTION DEVICES

With the emergence of ILM, a number of companies have begun to market gamma radiation detection instruments. Most of the competitive products have been designed from an industrial or nuclear medicine perspective rather than being developed initially for surgical use. Through 2002, the principal competitive product in both the United States and Europe was a gamma detection system marketed by US Surgical Corporation, a subsidiary of Tyco International Ltd.; however, we believe, based on competitive intelligence, that US Surgical has retreated from the sale of gamma detection devices in the U.S. and certain other global markets. We also compete with products produced by Care Wise Medical Products Corporation, PI Medical Diagnostic Equipment B.V., Pol.Hi.Tech. Srl, Silicon Instruments GmbH 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 of a large corporation (i.e., U.S. Surgical) 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 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 ILM 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; we cannot assure you, however, that competitive products will not be developed and be successful in eroding our market share or the prices we receive for our gamma detection devices. See also 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 sulphur-colloid compound in the U.S. and other colloid 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.

Direct Blood Flow Measurement Devices

- Transit Time Ultrasound (TT) Flowmetry is the leading modality 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.

- Electromagnetic Flowmeters (EMF) are probably the oldest modality to quantify blood flow (other than timed collection). These devices monitor blood flow invasively, are impractical for multiple readings on different vessels, require precise sizing of probes to blood vessels, and do not provide additional hemodynamic parameters. The technology requires the operator to encircle the blood vessel with an electromagnetic probe. The probe generates an electromagnetic field, and the voltage measured due to the blood flow is translated into volume flow estimates. In practice, however, this technology is generally considered outdated.

- 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, cumbersome, inaccurate and does not offer monitoring capabilities. However, plain Doppler systems provide only blood flow velocity rather than volume flow.

INDIRECT BLOOD FLOW MEASUREMENT DEVICES

- Cardiac Output (CO) Monitors include various means to monitor CO such as Thermal Dilution, Bio Impedance, and the Fick Method. These methods are either invasive or indirect in their measurement. Thermal Dilution, primarily through pulmonary artery catheterization, is the standard of care today for cardiac output measurements. This technology is not applicable to other intraoperative blood flow applications. The patient is injected with cold saline at a fixed temperature, and a temperature-sensitive transducer that is placed at the site of interest (usually the pulmonary artery) measures the time to return to baseline temperature, which is proportional to the blood flow rate. There are many limitations to this technology, including the relatively large inaccuracies of cardiac output measurements, the fact that it is not truly real-time, and the fact that this method is highly invasive, and is being linked to increased morbidity and mortality (JAMA, Connors et al., 1996).

- Computed Tomography, Magnetic Resonance Imaging and Single Photon Emission Computed Tomography techniques show target organ perfusion, but lack the ability to monitor or to provide real-time information. They are technician-dependent, impractical for bedside usage and very expensive.

- Laser Doppler Flowmeters monitor skin blood flow non-invasively. They are applicable only to superficial and tiny vessels and do not provide additional hemodynamic parameters.

- Transcranial Doppler (TCD) monitors cerebral blood velocity rather than direct blood flow. TCD is non-invasive and provides continuous measurement of blood flow velocity in the vessels of the brain. TCD is technician-dependent and cannot be used on every patient.

- Plethysmography indirectly measures an index of blood flow and is limited primarily to limb assessment. Measurement depends upon many factors and output is accordingly inaccurate.

- Jugular Bulb Saturation measures the efficiency of oxygen use by the brain. It is invasive, and provides global results.

- NIRS is a non-invasive method utilizing near infrared spectroscopy to provide regional perfusion in the brain.

POTENTIALLY COMPETITIVE BLOOD FLOW MEASUREMENT DEVICES

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:

- Intraoperative applications: Carolina Medical, Inc. (EMF), Transonic Systems, Inc. and Medi-Stim AS (TT).

- Neurosurgery applications: HADECO, Hayashi Denki Co., Ltd. (Doppler based), DWL Elektronische Systeme GmbH and Nicolet Biomedical (TCD).

- Critical care monitoring: Deltex Medical Ltd. Arrow International, Inc. (Transesophageal Doppler), and CardioDynamics International Corp. (Bio Impedance).

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. Specifically, twenty instrument patents have been issued in the United Sates as well as major foreign markets protect our ILM technology.

Cardiosonix has also applied for patent coverage for the key elements of its ADBF technology in the EU and the U.S. The first of the two patents covering Cardiosonix ADBF technology was issued in the U.S. in January 2003 and claims for the second patent have been allowed. Two patents have been filed in the EU and the claims of one patent have been allowed and the claims of the second patent are in the late stage of review by the relevant governing bodies.

Lymphoseek is also the subject of patent applications in the United States and certain major foreign markets. The first composition of matter patent covering Lymphoseek was issued in the U.S. in June 2002. The claims of the composition of matter patent covering Lymphoseek have been allowed in the EU and the composition of matter patent is being prosecuted in Japan.

We continue to attempt 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. Certain aspects of our RIGS technology are claimed in the United States in U.S. Patent No. 4,782,840, which expires in 2005, unless extended. In addition to the RIGS patent, composition of matter patents that have been issued in the U.S. and EU cover the antibodies used in clinical studies. The most recent of these patents issued in 2004.

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 for, 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 also 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.

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. Our medical devices are regulated 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 devices into Canada, and therefore must continue to manufacture the devices under a quality system compliant to the requirements of ISO 13485 and CMDCAS.

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 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. We intend to submit additional applications for clearance or amendments, as appropriate, for the Quantix/TE in the future.

GAMMA DETECTION RADIOPHARMACEUTICALS (LYMPHOSEEK AND RIGS)

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

The process of completing pre-clinical and clinical testing, manufacturing validation and submission of a marketing application to the appropriate regulatory bodies usually takes a number of years and requires the expenditure of substantial resources, and we cannot assure you that any approval will be granted on a timely basis, if at all. Additionally, the length of time it takes for the various regulatory bodies to evaluate an application for marketing approval varies considerably, as does the amount of preclinical and clinical

data required to demonstrate the safety and efficacy of a specific product. The regulatory bodies may require additional clinical studies that may take several years to perform. The length of the review period may vary widely depending upon the nature and indications of the proposed product and whether the regulatory body has any further questions or requests any additional data. Also, the regulatory bodies will likely require postmarketing 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 December 20, 2004, we had 21 full-time employees, including those of our subsidiary, Cardiosonix. We consider our relations with our employees to be good.

DESCRIPTION OF PROPERTY

We currently lease our office at 425 Metro Place North, Dublin, Ohio. We executed a lease agreement, commencing on September 1, 2003 and ending in September 2006, with the landlord of these facilities for approximately 9,000 square feet. The lease provides for a monthly base rent of approximately $6,200 in 2004. 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 space lease somewhat related to our radiopharmaceutical activities depending on the level of activities performed internally versus by third parties.

Our subsidiary, Cardiosonix Ltd., currently leases its office in the Kital Building at 8 Hasadna Street, Ra'anana, Israel. The lease covers approximately 350 square meters of space and expires in June 2005. The lease provides for a monthly base rent of $2,400 through the expiration of the lease.

OUR MANAGEMENT

DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

DIRECTORS

THE FOLLOWING DIRECTORS' TERMS CONTINUE UNTIL THE 2005 ANNUAL MEETING:

CARL J. ASCHINGER, JR., age 65, has served as a director of our Company since June 2004. Mr. Aschinger is the Chairman and Chief Executive Officer of 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 Wilson-Bohannon, a privately-held company that manufactures padlocks. 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.

NANCY E. KATZ, age 45, has served as a director of our Company since January 2001. Ms. Katz currently is an independent health care business consultant. Ms. Katz served as President, Chief Executive Officer and director of Calypte until June 2003. Ms. Katz joined Calypte in October 1999 as President, Chief Operating Officer and Chief Financial Officer. Prior to joining Calypte, Ms. Katz served as President of Zila Pharm Inc. From 1997 to 1998, Ms. Katz served as Vice President of Sales & Marketing of LifeScan (the diabetes testing division of Johnson & Johnson) and Vice President of U.S. Marketing, directing LifeScan's marketing and customer call center departments from 1995 to 1997. During her seven-year career at Schering-Plough Healthcare Products from 1987 to 1994, she held numerous positions including Senior Director & General Manager, Marketing Director for Footcare New Products, and Product Director of OTC New Products. Ms. Katz also held various product management positions at American Home Products from 1981 to 1987. Ms. Katz received her B.A. in Business Administration from the University of South Florida.

FRED B. MILLER, age 65, 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 boards of two other privately-held companies. 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.

THE FOLLOWING DIRECTORS' TERMS CONTINUE UNTIL THE 2006 ANNUAL MEETING:

KIRBY I. BLAND, M.D., age 62, 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 62, 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.

THE FOLLOWING DIRECTORS' TERMS CONTINUE UNTIL THE 2007 ANNUAL MEETING:

REUVEN AVITAL, age 53, 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, through which he is a member of the board of Neoprobe as well as a number of privately-held Israeli companies, three 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 board member in 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 55, has served as President and a director of our Company since August 1992 and as Chief Executive Officer since February 1998. From August 1992 to May 1993, Mr. Bupp served as our Treasurer. In addition to the foregoing positions, from December 1991 to August 1992, he was Acting President, Executive Vice President, Chief Operating Officer and Treasurer, and from December 1989 to December 1991, he was Vice President, Finance and Chief Financial Officer. From 1982 to December 1989, Mr. Bupp was Senior Vice President, Regional Manager for AmeriTrust Company National Association, a nationally chartered bank holding company, where he was in charge of commercial banking operations throughout Central Ohio. Mr. Bupp has a B.A. degree in Economics from Ohio Wesleyan University. Mr. Bupp completed a course of study at Stonier Graduate School of Banking at Rutgers University.

JULIUS R. KREVANS, M.D., age 80, has served as a director of our Company since May 1994 and as Chairman of the Board of Directors of our Company since February 1999. Dr. Krevans served as Chancellor of the University of California, San Francisco from July 1982 until May 1993. Prior to his appointment as Chancellor, Dr. Krevans served as a Professor of Medicine and Dean of the School of Medicine at the University of California, San Francisco from 1971 to 1982. Dr. Krevans is a member of the Institute of Medicine, National Academy of Sciences, and led its committee for the National Research Agenda on Aging until 1991. Dr. Krevans also serves on the Board of Directors and the compensation committee of the Board of Directors of Calypte Biomedical Corporation (Calypte), a publicly held corporation. Dr. Krevans has a B.S. degree and a M.D. degree, both from New York University.

EXECUTIVE OFFICERS

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

Name	Age	Position
Anthony K. Blair	44	Vice President, Manufacturing Operation
Carl M. Bosch	47	Vice President, Research and Developmen
Rodger A. Brown	53	Vice President, Regulatory Affairs and Quality Assurance
Brent L. Larson	41	Vice President, Finance; Chief Financia Treasurer and Secretary
Douglas L. Rash	61	Vice President, Marketing

ANTHONY K. BLAIR has served as Vice President, Manufacturing Operations of our Company since July 2004. Mr. Blair has 16 years of experience in the medical device industry. 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.

CARL M. BOSCH has served as Vice President, Research and Development of our Company since March 2000. Prior to that, Mr. Bosch served as our Director, Instrument Development from May 1998 to March 2000. Before joining our Company, Mr. Bosch was employed by GE Medical Systems from 1994 to 1998 where he served as Manager, Nuclear Programs. From 1977 to 1994, Mr. Bosch was employed by GE Aerospace in several engineering and management functions. Mr. Bosch has a B.S. degree in Electrical Engineering from Lehigh University and a M.S. degree in Systems Engineering from the University of Pennsylvania.

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.

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.

EXECUTIVE COMPENSATION

SUMMARY COMPENSATION TABLE

The following table sets forth certain information concerning the annual and long-term compensation of our Chief Executive Officer and our other four highest paid executive officers having annual compensation in excess of $100,000 during the last fiscal year (the Named Executives) for the last three fiscal years.

		ANNUAL COMPENSATION		LONG TERM COMPENSATION AWARD	
				RESTRICTED STOCK AWARDS	SECURI UNDERLY OPTIO
	YEAR	SALARY	BONUS	($)	(#)
Name and Principal Position					
Carl M. Bosch	2003	$ 135,125	$ -	-	70,0
Vice President,	2002	129,375	-	-	50,0
Research and Development	2001	129,375	25,250	-	45,0
Rodger A. Brown	2003	$ 125,316	$ -	-	70,0
Vice President, Regulatory Affairs/	2002	105,417	-	-	50,0
Quality Assurance	2001	99,875	19,000	-	45,0
David C. Bupp	2003	$ 222,167	$ 32,500	-	170,0
President and	2002	297,083	-	-	180,0

Chief Executive Officer	2001	310,000	46,500	-	180,0
Brent L. Larson	2003	$ 135,125	$ -	-	70,0
Vice President, Finance and	2002	129,375	-	-	50,0
Chief Financial Officer	2001	131,250	20,250	-	60,0
Dan Manor	2003	$ 145,000	$ -	-	40,0
President and Chief Executive	2002	145,000	-	-	50,0
Officer, Cardiosonix Ltd.(d)	2001	-	-	-	

(a) Amounts represent solely matching contribution under the Neoprobe Corporation 401(k) Plan (the Plan), except for 2003, which includes $3,870 related to the vesting of restricted stock. 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 is intended to qualify 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.

(b) Amounts represent matching contribution under the Plan, except for 2003, which includes $27,090 related to the vesting of restricted stock and social luncheon club dues.

(c) Amounts represent solely matching contribution under the Plan, except for 2003, which includes $9,030 related to the vesting of restricted stock.

(d) Mr. Manor began his employment with our company on January 1, 2002, in connection with our acquisition of Cardiosonix Ltd. (formerly Biosonix Ltd.) and ended his employment on December 31, 2003.

(e) Amounts represent reimbursements for a company car leased for Mr. Manor's use.

OPTION GRANTS IN LAST FISCAL YEAR

The following table presents certain information concerning stock options granted to the Named Executives under the 2002 Stock Incentive Plan during the 2003 fiscal year.

	INDIVIDUAL GRANTS			
	NUMBER OF SECURITIES UNDERLYING OPTIONS	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN	EXERCISE PRICE	EXPIRATION

NAME	GRANTED (SHARES)	FISCAL YEAR	PER SHARE	DATE(D)
Carl M. Bosch	40,000(a)	3.9%	$ 0.14(b)	1/15/13
	30,000(a)	2.9%	$ 0.13(c)	2/15/13
Rodger A. Brown	40,000(a)	3.9%	$ 0.14(b)	1/15/13
	30,000(a)	2.9%	$ 0.13(c)	2/15/13
David C. Bupp	100,000(a)	9.7%	$ 0.14(b)	1/15/13
	70,000(a)	6.8%	$ 0.13(c)	2/15/13
Brent L. Larson	40,000(a)	3.9%	$ 0.14(b)	1/15/13
	30,000(a)	2.9%	$ 0.13(c)	2/15/13
Dan Manor	40,000(a)	3.9%	$ 0.14(b)	1/15/13

(a) Vests as to one-third of these shares on each of the first three anniversaries of the date of grant.

(b) The per share weighted average fair value of these stock options during 2003 was $0.12 on the date of grant using the Black-Scholes option pricing model with the following assumptions: an expected life of 4 years, an average risk-free interest rate of 2.7%, volatility of 146% and no expected dividend rate.

(c) The per share weighted average fair value of these stock options during 2003 was $0.11 on the date of grant using the Black-Scholes option pricing model with the following assumptions: an expected life of 4 years, an average risk-free interest rate of 2.5%, volatility of 146% and no expected dividend rate.

(d) The options terminate on the earlier of the expiration date, nine months after death or disability, 90 days after termination of employment without cause or by resignation or immediately upon termination of employment for cause.

Fiscal Year-End Option Numbers and Values

The following table sets forth certain information concerning the number and value of unexercised options held by the Named Executives at the end of the last fiscal year (December 31, 2003). There were no stock options exercised by the Named Executives during the fiscal year ended December 31, 2003.

NAME	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FISCAL YEAR-END: EXERCISABLE/UNEXERCISABLE	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FISCAL YEAR-END: EXERCISABLE/UNEXERCISABLE(1)
Carl M. Bosch	121,667 / 118,333	$0 / $12,200

Rodger A. Brown	116,167	/	118,333	$0 / $12,200
David C. Bupp	410,000	/	450,000	$0 / $12,200
Brent L. Larson	173,867	/	123,333	$0 / $29,600
Dan Manor	16,667	/	33,333	$0 / $ 6,800

(1) Represents the total gain which would be realized if all in-the-money options held at year end were exercised, determined by multiplying the number of shares underlying the options by the difference between the per share option exercise price and the per share fair market value at year end of $0.31. An option is in-the-money if the fair market value of the underlying shares exceeds the exercise price of the option.

COMPENSATION OF NON-EMPLOYEE DIRECTORS

We did not pay directors for participation in board or committee meetings in 2003. We reimbursed non-employee directors for travel expenses for meetings attended during fiscal 2003. In addition, each non-employee director 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 an annual basis over a three-year period 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 our Company do not receive any compensation for their services as directors.

COMPENSATION OF MR. BUPP

Employment Agreement. David C. Bupp is employed under a thirty-six month employment agreement effective January 1, 2004. The employment agreement provided for an annual base salary of $271,250, which was subsequently increased to $290,000.

The Board of Directors will, on an annual basis, review the performance of our company and of Mr. Bupp and will 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 Committee that covers the executive officers of our company generally. Mr. Bupp was paid a bonus of $15,000 relating to fiscal year 2004.

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);
- the term of Mr. Bupp's employment agreement expires; or
- Mr. Bupp resigns because his authority, responsibilities or compensation have materially diminished, a material change occurs in

his working conditions or we breach the agreement;

then, Mr. Bupp will be paid a severance payment of $650,000 (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). If any such termination occurs after the substantial completion of the liquidation of our assets, the severance payment shall be increased by $81,250.

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 15 percent or more of our securities with voting power in the next meeting of holders of voting securities to elect the directors;

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

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

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

Mr. Bupp will be paid a severance amount of $406,250 if his employment is terminated at the end of his employment agreement or without cause and his benefits will continue for the longer of twenty-four months or the full term of the agreement.

Restricted Stock Agreements. Mr. Bupp holds 100,000, 35,000, 45,000 and 30,000 shares of our common stock that was originally granted as restricted stock grants on March 22, 2000, April 30, 1999, May 20, 1998 and June 1, 1996, respectively, pursuant to restricted stock purchase agreements of the same dates. The original grants did not allow Mr. Bupp to transfer or sell any of the restricted shares unless and until they vested and contained certain change of control provisions. However, in connection with the February 1, 2003 amendment to Mr. Bupp's previous employment agreement, we vested Mr. Bupp's interest in the shares. We recognized $27,090 in compensation expense related to the vesting of the restricted stock in 2003 which occurred as a result of the execution of a February 1, 2003 amendment to Mr. Bupp's previous employment agreement.

COMPENSATION AGREEMENTS WITH OTHER NAMED EXECUTIVES

CARL M. BOSCH

Employment Agreement. Carl Bosch is employed under a twenty-four month employment agreement effective January 1, 2005. The employment agreement

provides for an annual base salary of $149,000.

The Compensation Committee will, on an annual basis, review the performance of our company and of Mr. Bosch and we will pay a bonus to Mr. Bosch as we deem appropriate, in our discretion. Such review and bonus will be consistent with any bonus plan adopted by the Compensation Committee that covers the executive officers of our company generally. Mr. Bosch was paid a bonus of $6,000 relating to fiscal year 2004. Mr. Bosch was paid $26,000 in salary during 2003 that was deferred under the terms of his previous employment agreement.

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

- without cause (cause is defined as any willful breach of a material duty by Bosch in the course of his employment or willful and continued neglect of his duty as an employee);
- the term of Mr. Bosch's employment agreement expires; or
- Mr. Bosch resigns because his authority, responsibilities or compensation have materially diminished, a material change occurs in his working conditions or we breach the agreement;

then, Mr. Bosch will be paid a severance payment of $298,000 and will continue his benefits for the longer of twelve months or the remaining term of his employment agreement.

For purposes of Mr. Bosch'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 30 percent or more of our securities with voting power in the next meeting of holders of voting securities to elect the directors;
- a majority of the directors elected at any meeting of the holders of our voting securities are persons who were not nominated by our then current Board of Directors or an authorized committee thereof;
- our stockholders approve a merger or consolidation of our company with another person, other than a merger or consolidation in which the holders of our voting securities outstanding immediately before such merger or consolidation continue to hold voting securities in the surviving or resulting corporation (in the same relative proportions to each other as existed before such event) comprising eighty percent (80%) or more of the voting power for all purposes of the surviving or resulting corporation; or
- our stockholders approve a transfer of substantially all of the assets of our company to another person other than a transfer to a transferee, eighty percent (80%) or more of the voting power of which is owned or controlled by us or by the holders of our voting securities outstanding immediately before such transfer in the same relative proportions to each other as existed before such event.

Mr. Bosch will be paid a severance amount of $149,000 if his employment is terminated at the end of his employment agreement or without cause, and his benefits will be continued for up to twelve months.

Restricted Stock Agreement. Mr. Bosch also holds 30,000 shares of our common stock that were originally granted to him as restricted stock on March 22, 2000, pursuant to a restricted stock purchase agreement with our company as of the same date. Under the original terms of the underlying restricted stock purchase agreement, Mr. Bosch could not transfer or sell any of the restricted shares unless and until they vest. However, in connection with the execution of his previous employment agreement that was effective from February 1, 2003 through December 31, 2003 and Mr. Bosch's waiver of amounts previously deferred under an August 1, 2002 amendment to another previous employment agreement, we vested Mr. Bosch's interest in the shares. We recognized $3,870 in compensation expense related to the vesting of the restricted stock in 2003 concurrent with the execution of Mr. Bosch's previous employment agreement.

RODGER A. BROWN

Employment Agreement. Rodger Brown is employed under a twenty-four month employment agreement effective January 1, 2005. The employment agreement provides for an annual base salary of $124,000. Mr. Brown was paid $32,733 in salary during 2003 that was deferred under the terms of his previous employment agreements.

The terms of Mr. Brown's employment agreement are substantially identical to Mr. Bosch's employment agreement except that Mr. Brown would be paid $248,000 if terminated due to a change of control and $124,000 if terminated at the end of his employment or without cause.

The Compensation Committee will, on an annual basis, review the performance of our company and of Mr. Brown and we will pay a bonus to Mr. Brown as we deem appropriate, in our discretion. Such review and bonus will be consistent with any bonus plan adopted by the Compensation Committee that covers the executive officers of our company generally. Mr. Brown was paid a bonus of $2,500 relating to fiscal year 2004.

BRENT L. LARSON

Employment Agreement. Brent Larson is employed under a twenty-four month employment agreement effective January 1, 2005. The employment agreement provides for an annual base salary of $149,000. Mr. Larson was paid $26,000 in salary during 2003 that was deferred under the terms of his previous employment agreement.

The terms of Mr. Larson's employment agreement are substantially identical to Mr. Bosch's employment agreement. The Compensation Committee will, on an annual basis, review the performance of our company and of Mr. Larson and we will 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 Committee that covers the executive officers of our company generally. Mr. Larson was paid a bonus of $6,000 relating to fiscal year 2004.

Restricted Stock Agreement(s). Mr. Larson also holds 40,000, 20,000 and 10,000 shares of our common stock that were originally granted to him as restricted stock granted to him at a price of $0.001 per share on March 22, 2000, April 30, 1999 and October 23, 1998, respectively, pursuant to restricted stock purchase agreements of the same dates. The terms of Mr. Larson's restricted stock purchase agreement are identical to those contained in Mr. Bosch's restricted stock purchase agreement discussed above regarding vesting, forfeiture and rights of ownership. However, in connection with the execution of his previous employment agreement that was effective from February 1, 2003 through December 31, 2003 and Mr. Larson's waiver of amounts previously deferred under an August 1, 2002 amendment to another previous employment agreement, we vested Mr. Larson's interest in the shares. We recognized $9,030 in compensation expense

related to the vesting of the restricted stock in 2003 concurrent with the execution of Mr. Larson's previous employment agreement.

DAN MANOR

Dan Manor was employed by our subsidiary, Cardiosonix Ltd., as its President under a two-year employment agreement effective January 1, 2002. The employment agreement provided for a monthly basic salary of $12,083 and automatically renewed for one-year increments unless written notice was given ninety days prior to the end of the then term of the agreement. Dr. Manor will also receive one third of 1% of the Net Revenues (as defined in Dr. Manor's employment

agreement) from Cardiosonix products for up to five years from the effective date of the agreement. Cardiosonix also provided Dr. Manor with an automobile allowance, and provided certain statutory benefits under the laws of the State of Israel. Neoprobe and Dr. Manor agreed in September 2003 not to renew his employment agreement following the expiration of its initial term on December 31, 2003; however, the royalty provisions of his agreement survive the end of his employment with Cardiosonix and continue through December 31, 2006.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

SECURITY OWNERSHIP OF PRINCIPAL STOCKHOLDERS, DIRECTORS, NOMINEES AND EXECUTIVE OFFICERS

The following table sets forth, as of December 20, 2004, certain information with respect to the beneficial ownership of shares of our common stock by: (i) each person known to us to be the beneficial owner of more than 5 percent of our outstanding shares of common stock, (ii) each director or nominee for director of our Company, (iii) each of the Named Executives (see "Executive Compensation - Summary Compensation Table"), and (iv) our directors and executive officers as a group.

BENEFICIAL OWNER	NUMBER OF SHARES BENEFICIALLY OWNED(*)	PERCEN OF CLASS
Carl J. Aschinger, Jr.	63,000(a)	(
Reuven Avital	2,836,791(b)	4.
Anthony K. Blair	50,000(c)	(
Kirby I. Bland	50,000(d)	(
Carl M. Bosch	308,619(e)	(
Rodger A. Brown	224,500(f)	(
David C. Bupp	2,313,226(g)	3.
Nancy E. Katz	84,068(h)	(
Julius R. Krevans	228,668(i)	(
Brent L. Larson	401,657(j)	(
Fred B. Miller	62,668(k)	(
J. Frank Whitley, Jr.	142,668(l)	(
All directors and officers as a group (11 persons)	6,765,866(m)	11.
Dan Purjes, et al.	3,913,044(n)	6.

Dan Manor	(o)	(
Great Point Partners, L.P.	30,000,000(p)	34.

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

(**) Percent of class is calculated on the basis of the number of shares outstanding on December 20, 2004, plus the number of shares the person has the right to acquire within 60 days of December 20, 2004.

(a) This amount includes 40,000 shares issuable upon exercise of options which are not exercisable within 60 days.

(b) This amount consists of 2,785,123 shares of our common stock owned by N. Assia Trusteeship Ltd, Trustee for Ma'Aragim Enterprises Ltd., an investment fund under the management and control of Mr. Avital, and 51,668 shares issuable upon exercise of options which are exercisable within 60 days but does not include 33,332 shares issuable upon exercise of options which are not exercisable within 60 days. Of the shares held by N. Assia Trusteeship Ltd., 2,286,712 were acquired by Ma'Aragim in exchange for surrendering its shares in Cardiosonix Ltd. on December 31, 2001, in connection with our acquisition of Cardiosonix, and 498,411 were acquired by Ma'Aragim based on the satisfaction of certain developmental milestones on December 30, 2002, associated with our acquisition of Cardiosonix.

(c) This amount does not include 90,000 shares issuable upon exercise of options which are not exercisable within 60 days.

(d) This amount includes 50,000 shares issuable upon exercise of options which are exercisable within 60 days but does not include 20,000 shares issuable upon exercise of options which are not exercisable within 60 days.

(e) This amount includes 230,001 shares issuable upon exercise of options which are exercisable within 60 days and 38,618 shares in Mr. Bosch's account in the 401(k) Plan, but does not include 179,999 shares issuable upon exercise of options which are not exercisable within 60 days. Mr. Bosch is one of three trustees of the 401(k) Plan and may, as such, share investment power over common stock held in such plan. The 401(k) Plan holds an aggregate total of 274,648 shares of common stock. Mr. Bosch disclaims any beneficial ownership of shares held by the 401(k) Plan that are not allocated to his personal account.

(f) This amount includes 224,501 shares issuable upon exercise of options which are exercisable within 60 days, but does not include 169,999 shares issuable upon exercise of options which are not exercisable within 60 days.

(g) This amount includes 730,001 shares issuable upon exercise of options which are exercisable within 60 days, 875,000 warrants which are exercisable within 60 days, a promissory note convertible into 250,000 shares of our common stock, 50,875 shares that are held by Mr. Bupp's wife for which he disclaims beneficial ownership and 56,850 shares in Mr. Bupp's account in the 401(k) Plan, but it does not include 629,999 shares issuable upon exercise of options which are not exercisable within 60 days. Mr. Bupp is

one of three trustees of the 401(k) Plan and may, as such, share investment power over common stock held in such plan. The 401(k) Plan holds an aggregate total of 274,648 shares of common stock. Mr. Bupp disclaims any beneficial ownership of shares held by the 401(k) Plan that are not allocated to his personal account.

(h) This amount includes 81,668 shares issuable upon exercise of options which are exercisable within 60 days, but does not include 33,332 shares issuable upon the exercise of options which are not exercisable within 60 days.

(i) This amount includes 226,668 shares issuable upon exercise of options which are exercisable within 60 days, but does not include 73,332 shares issuable upon exercise of options which are not exercisable within 60 days.

(j) This amount includes 287,201 shares issuable upon exercise of options which are exercisable within 60 days and 38,956 shares in Mr. Larson's account in the 401(k) Plan, but it does not include 179,999 shares issuable upon exercise of options which are not exercisable within 60 days. Mr. Larson is one of three trustees of the 401(k) Plan and may, as such, share investment power over common stock held in such plan. The 401(k) Plan holds an aggregate total of 274,648 shares of common stock. Mr. Larson disclaims any beneficial ownership of shares held by the 401(k) Plan that are not allocated to his personal account.

(k) This amount includes 51,668 shares issuable upon exercise of options which are exercisable within 60 days and 11,000 shares held by Mr. Miller's wife for which he disclaims beneficial ownership, but does not include 73,332 shares issuable upon the exercise of options which are not exercisable within 60 days.

(l) This amount includes 141,668 shares issuable upon exercise of options which are exercisable within 60 days, but does not include 33,332 shares issuable upon exercise of options which are not exercisable within 60 days.

(m) This amount includes 2,115,044 shares issuable upon exercise of options which are exercisable within 60 days and 134,424 shares held in the 401(k) Plan, but it does not include 1,516,665 shares issuable upon the exercise of options which are not exercisable within 60 days. Certain executive officers of our Company are the trustees of the 401(k) Plan and may, as such, share investment power over common stock held in such plan. Each trustee disclaims any beneficial ownership of shares held by the 401(k) Plan that are not allocated to his personal account. The 401(k) Plan holds an aggregate total of 274,648 shares of common stock.

(n) This amount consists of 434,783 shares owned by MFW Associates, 217,391 warrants held by MFW associates which are exercisable within 60 days, 869,565 shares owned collectively by Dan & Edna Purjes, 434,783 warrants held collectively by Dan & Edna Purjes which are exercisable within 60 days, 217,391 shares owned by Y Securities Management, Ltd., 108,696 warrants held by Y Securities Management, Ltd. which are exercisable within 60 days, 217,391 shares owned by the Purjes Foundation, 108,696 warrants held by the Purjes Foundation which are exercisable within 60 days, 869,565 shares owned by Dan Purjes IRA and 434,783 warrants held by Dan Purjes IRA which are exercisable within 60 days (collectively, Dan Purjes, et al.). This amount is based on information provided to us in connection with the purchase of these securities in a private placement and subsequent filing of a registration statement and represents the best information available to us at the time of this filing.

(o) Mr. Manor is no longer affiliated with our Company. As a consequence, we are unable to determine his beneficial ownership of shares or the percentage of outstanding shares held.

(p) This amount includes 11,000,000 shares convertible from promissory notes of $4,400,000 held by Biomedical Value Fund, L.P. (BVF) that are convertible within 60 days, 9,000,000 shares convertible from promissory notes of $3,600,000 held by Biomedical Offshore Value Fund, LTD. (BOVF) that are convertible within 60 days, 5,500,000 warrants held by BVF that are exercisable within 60 days and 4,500,000 warrants held by BOVF that are exercisable within 60 days. BVF and BOVF are investment funds managed by Great Point Partners, LLP.

(q) Less than one percent.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued Mr. Bupp warrants, expiring in April 2008, to purchase 375,000 shares of our common stock at an exercise price of $0.13 per share. Interest accrued on the note at the rate of 8.5% per annum, payable monthly, and the note was due on June 30, 2004. On March 8, 2004, the due date of the note to Mr. Bupp was extended to June 30, 2005. In exchange for extending the due date of the note, we issued Mr. Bupp an additional warrant, expiring in March 2009, to purchase 375,000 shares of our common stock at an exercise price of $0.50 per share. The shares covered by this prospectus include the 375,000 shares of common stock issuable pursuant to the warrants granted to Mr. Bupp in March 2004. The note was repaid with proceeds from our convertible note financing in December 2004.

On December, 13, 2004, we completed a Securities Purchase Agreement for the purchase of convertible promissory notes in an aggregate principal amount of $8.1 million with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC. The notes will bear interest at 8% per annum and are freely convertible into shares of our common stock at a price of $0.40 per share. In addition to the notes, we also issued five-year warrants to Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp to purchase an aggregate 10,125,000 shares of our common stock at an exercise price of $0.46. The shares covered by this prospectus include 20,250,000 shares of common stock issuable upon conversion of the notes, and the 10,125,000 shares of our common stock issuable upon the exercise of the warrants. Pursuant to the terms of the Securities Purchase Agreement, the Company agreed that while the notes remain outstanding, its Board of Directors (or if it then exists, the nominating committee of the Board) shall nominate one independent director, reasonably acceptable to the BV Funds, for election to the Board at each meeting of the stockholders of the Company at which directors are to be elected and shall recommend to such stockholders that they vote in favor of such nominee's election to the Board.

DESCRIPTION OF CAPITAL STOCK

AUTHORIZED AND ISSUED STOCK

	NUMBER OF SHARES AT NOVEMBER 15,	
TITLE OF CLASS	AUTHORIZED	OUTSTANDING

Common Stock, $0.001 par value per share	100,000,000	58,287,057
Preferred Stock, $0.001 par value per share(1)	5,000,000	0

(1) Preferred Stock includes 500,000 shares which have been designated as Series A Junior Participating Preferred Stock.

COMMON STOCK

DIVIDENDS

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

LIQUIDATION

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

VOTING RIGHTS

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

PREEMPTIVE RIGHTS

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

REDEMPTION RIGHTS

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

CONVERSION RIGHTS

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

PREFERRED STOCK

Our certificate of incorporation authorizes our board of directors to issue "blank check" preferred stock. The board of directors may divide this stock into series and set their rights. To date, our board of directors has created one series of preferred stock. 500,000 shares of preferred stock have been designated as Series A Junior Participating Preferred Stock and reserved for

issuance under the stockholder rights plan described below. The board of directors had previously designated 63,000 shares of preferred stock as 5% Series B Convertible Preferred Stock, but these shares have been redeemed and returned to the status of unissued shares. The board of directors may, without prior stockholder approval, issue any of the remaining 4,500,000 shares 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. Although we have no present intention of issuing any shares of preferred stock, our board of directors may do so in the future. If we do issue preferred stock in the future, it could have a dilutive effect upon the common stock. See Risk Factors.

STOCKHOLDER RIGHTS PLAN

We have adopted a stockholder rights plan for the purpose of protecting the interests of our stockholders if we are confronted with coercive or unfair takeover tactics. The goal of our stockholder rights plan is to encourage third parties interested in acquiring our company to negotiate with our board of directors. Under the plan, we distributed rights to purchase one hundredth of a share of Series A Preferred Stock at an exercise price of $35 per right to the stockholders at the rate of one right per share of common stock. The rights are attached to the common stock and are not exercisable until after 15 percent of the common stock has been acquired or tendered for. At that point, the rights would be separately traded and exercisable. If a third party crosses the 15 percent threshold, the rights would flip-in (but not the rights of the 15 percent stockholder) and become rights to acquire, upon payment of the exercise price, common stock (or, in some circumstances, other securities) with a value of twice the exercise price of the right. If a third party were to take actions to acquire our company, such as a merger, the rights would flip-over and entitle the owners of the rights to acquire stock of the acquiring person with a value of twice the exercise price. We may redeem the rights at any time before they become exercisable for $.01 per right. The plan expires on August 28, 2005. The number of rights per share of common stock will be adjusted in the future to reflect future splits and combinations of, and common stock dividends on, our common stock. The exercise price of the rights will be adjusted to reflect changes in the Series A Preferred Stock.

SERIES A PREFERRED STOCK

REDEMPTION

We may redeem Series A Preferred Stock at a price equal to 100 times the current per share market price of the common stock, together with accrued but unpaid dividends. We are not required to create a sinking fund to provide assets for a redemption.

DIVIDEND

Each owner of Series A Preferred Stock is entitled to receive a minimum quarterly dividend of $.05 per share plus an aggregate dividend of 100 times any dividend declared on the common stock.

ELECTION OF DIRECTORS

If dividends on Series A Preferred Stock are in arrears in an amount equal to six quarterly payments, all owners of Preferred Stock (including holders of Series A Preferred Stock) with dividends in arrears equal to this amount, voting as a class, could elect two directors.

LIQUIDATION

If our company is liquidated, the holders of the Series A Preferred Stock will receive a preferred liquidation payment of $.10 per share and, after the common stock has received a proportionate distribution, will share in the remaining assets on a proportionate basis with the common stock.

PRIORITY

Series A Preferred Stock is senior to common stock, but junior to all other classes of preferred stock as to the payment of dividends and the distribution of assets.

VOTING

Each owner of Series A Preferred Stock is entitled to 100 votes per share of Series A Preferred Stock.

EXCHANGES

In any merger or other transaction where common stock is exchanged, each share of Series A Preferred Stock will be entitled to receive 100 times the amount received by the common stock.

ANTI-DILUTION

We intend that each share of Series A Preferred Stock approximate 100 shares of common stock as they existed on the date the rights were distributed (August 28, 1995); therefore, the redemption price, dividend, liquidation price and voting rights will be adjusted to reflect splits and combinations of, and common stock dividends on, the common stock after that date.

ANTI-TAKEOVER EFFECTS

Our stockholder rights plan is designed to deter coercive takeover tactics and otherwise to encourage persons interested in acquiring Neoprobe to negotiate with our board of directors. The stockholder rights plan will confront a potential acquirer of our company with the possibility that our stockholders will be able to substantially dilute the acquirer's equity interest by exercising rights to buy additional stock in Neoprobe or, in some cases, stock in the acquirer, at a substantial discount. The plan may have the effect of deterring third parties from making takeover bids for control of our company or may be used to hinder or delay a takeover bid. This would decrease the chance that our stockholders would realize a premium over market price for their shares of common stock as a result of a takeover bid. See Risk. Our board of directors may redeem the rights for a nominal payment if it considers the proposed acquisition of Neoprobe to be in the best interests of our company and our stockholders. Accordingly, the stockholder rights plan would not interfere with any merger or other business combination which has been approved by the board of directors. Any plan which effectively requires an acquiring company to negotiate with our management may be characterized as increasing management's ability to maintain its position with Neoprobe, including the negotiation of a transaction which provides less value to the stockholders while providing benefits to management.

ANTI-TAKEOVER CHARTER PROVISIONS AND LAWS

In addition to the stockholder rights plan and the blank check preferred stock described above, some features of our certificate of incorporation and by-laws and the Delaware General Corporation Law (DGCL), which are further described

below, may have the effect of deterring third parties from making takeover bids for control of our company or may be used to hinder or delay a takeover bid. This would decrease the chance that our stockholders would realize a premium over market price for their shares of common stock as a result of a takeover bid. See Risk Factors.

LIMITATIONS ON STOCKHOLDER ACTIONS

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

ADVANCE NOTICE PROVISIONS

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

DELAWARE LAW

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

- the corporation's board of directors approved in advance either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85 percent of the corporation's voting stock at the time the transaction commenced; or
- the business combination is approved by the corporation's board of directors and the affirmative vote of at least two-thirds of the voting stock which is not owned by the interested stockholder.

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

CLASSIFIED BOARD

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

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

ACQUISITION OF COMMON STOCK BY SELLING STOCKHOLDERS

GENERAL

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued Mr. Bupp warrants, expiring in April 2008, to purchase 375,000 shares of our common stock at an exercise price of $0.13 per share. Interest accrued on the note at the rate of 8.5% per annum, payable monthly, and the note was due on June 30, 2004. On March 8, 2004, the due date of the note to Mr. Bupp was extended to June 30, 2005. In exchange for extending the due date of the note, we issued Mr. Bupp an additional warrant, expiring in March 2009, to purchase 375,000 shares of our common stock at an exercise price of $0.50 per share. The shares covered by this prospectus include the 375,000 shares of common stock issuable pursuant to the warrants granted to Mr. Bupp in March 2004. The note was repaid with proceeds from our convertible note financing in December 2004.

On December, 13, 2004, we completed a Securities Purchase Agreement for the purchase of convertible promissory notes in an aggregate principal amount of $8.1 million with Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp. Biomedical Value Fund, L.P. and Biomedical Offshore Value Fund, Ltd. are funds managed by Great Point Partners, LLC. The notes will bear

interest at 8% per annum and are freely convertible into shares of our common stock at a price of $0.40 per share. In addition to the notes, we also issued five-year warrants to Biomedical Value Fund, L.P., Biomedical Offshore Value Fund, Ltd. and Mr. Bupp to purchase an aggregate 10,125,000 shares of our common stock at an exercise price of $0.46. The shares covered by this prospectus include 20,250,000 shares of common stock issuable upon conversion of the notes, and the 10,125,000 shares of our common stock issuable upon the exercise of the warrants.

During 2004 we engaged the services of two investment banking firms to assist us in raising capital, Roth Capital Partners, LLC (Roth) and Laidlaw & Co. (Laidlaw). In exchange for the services of Roth, we agreed to pay $320,000 in cash, plus warrants to purchase 800,000 shares of our common stock. The warrants have an exercise price of $0.46 per share. In exchange for the services of Laidlaw, we agreed to pay $320,000 in cash, plus warrants to purchase 800,000 shares of our common stock. The warrants have an exercise price of $0.46 per share. This prospectus covers the resale of the shares of common stock issuable upon the exercise of the investment bankers' warrants.

All warrants issued in connection with the December 2004 transaction expire in December 2009. This prospectus covers the resale of shares of common stock issuable upon conversion of the convertible promissory notes, warrants issued to Mr. Bupp in exchange for extending the due date of the note executed in his favor in connection with the April 2003 bridge loan agreement, and the shares of common stock issuable pursuant to the warrants granted to the parties to the Securities Purchase Agreement and the placement agents and their assignees.

SELLING STOCKHOLDERS

The following table presents information regarding the selling stockholders and the shares that may be sold by them pursuant to this prospectus. See also Security Ownership of Certain Beneficial Owners and Management.

SELLING STOCKHOLDERS	SHARES OWNED BEFORE OFFERING	PERCENTAGE OF OUTSTANDING SHARES OWNED BEFORE OFFERING (1)	SHARES TO BE SOLD IN THE OFFERING	PERCENTAGE OUTSTANDI SHARES OW AFTER OFFERING
David C. Bupp(2)	2,313,226	3.2%	750,000	2.5
Great Point Partners, LLC(3)	0	*	30,000,000	*
Roth Capital Partners, LLC(4)	0	*	800,000	*
Laidlaw & Co.(5)	3,510,870	5.9%	800,000	4.6

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* Represents beneficial ownership of less than 1% of our outstanding common stock.

(1) The number of shares listed in these columns include all shares beneficially owned and all options or warrants to purchase shares held, whether or not deemed to be beneficially owned, by each selling stockholder. The ownership percentages listed in these columns include only

shares beneficially owned by the listed selling stockholder. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In computing the percentage of shares beneficially owned by a selling stockholder, shares of common stock subject to options or warrants held by that selling stockholder that were exercisable on or within 60 days after December 20, 2004, were deemed outstanding for the purpose of computing the percentage ownership of any other person. The ownership percentages are calculated assuming that 58,287,087 shares of common stock were outstanding on December 20, 2004.

(2) Prior to giving effect to the offering, Mr. Bupp held 350,500 shares of common stock, options exercisable within 60 days after December 20, 2004, for 730,001 shares of common stock, 58,650 shares of common stock in his account in the 401(k) plan, unvested options to purchase 629,999 shares of common stock, exercisable Series Q warrants to purchase 750,000 shares of our common stock, a promissory note convertible into 250,000 shares of our common stock and a warrant to purchase an additional 125,000 shares of our common stock issued in connection with the Securities Purchase Agreement dated December 13, 2004. After giving effect to the offering Mr. Bupp will hold 350,500 shares of common stock, options exercisable within 60 days after December 20, 2004 for 730,001 shares of common stock, shares of common stock in his account in the 401(k) plan, unvested options to purchase 629,999 shares of common stock and 375,000 Series Q warrants to purchase shares of common stock exercisable within 60 days after December 20, 2004.

(3) Prior to giving effect to the offering, Great Point Partners, LLC held exercisable warrants to purchase 10,000,000 shares of our common stock and promissory notes convertible into 20,000,000 shares of our common stock. This amount consists of exercisable warrants to purchase 5,500,000 shares of our common stock, and a promissory note convertible into 11,000,000 shares of our common stock, held by Biomedical Value Fund, L.P., an investment fund under the management and control of Great Point Partners, LLC; and, exercisable warrants to purchase 4,500,000 shares of our common stock, and a promissory note convertible into 9,000,000 shares of our common stock, held by Biomedical Offshore Value Fund, Ltd., an investment fund also under the management and control of Great Point Partners, LLC. Following the offering Great Point Partners, LLC will not hold any warrants to purchase shares of our common stock or any convertible shares of our common stock.

(4) Prior to giving effect to the offering, Roth Capital Partners, LLC held exercisable warrants to purchase 800,000 shares of our common stock. Following the offering Roth Capital Partners, LLC will not hold any warrants to purchase shares of our common stock.

(5) Prior to giving effect to the offering, Laidlaw & Co. (formerly Sands Brothers) held exercisable warrants to purchase 800,000 shares of our common stock. Following the offering Laidlaw & Co. will not hold any warrants to purchase shares of our common stock.

PLAN OF DISTRIBUTION

The Selling Stockholders and any of their pledgees, donees, transferees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of

the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits investors;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- to cover short sales made after the date that this Registration Statement is declared effective by the Commission;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The Selling Stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The Selling Stockholders may from time to time pledge or grant a security interest in some or all of the Shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

Upon the Company being notified in writing by a Selling Stockholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such Selling Stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such the shares of common stock were sold, (iv)the

commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In addition,

upon the Company being notified in writing by a Selling Stockholder that a donee or pledgee intends to sell more than 500 shares of common stock, a supplement to this prospectus will be filed if then required in accordance with applicable securities law.

The Selling Stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The Selling Stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Discounts, concessions, commissions and similar selling expenses, if any, that can be attributed to the sale of Securities will be paid by the Selling Stockholder and/or the purchasers. Each Selling Stockholder has represented and warranted to the Company that it acquired the securities subject to this registration statement in the ordinary course of such Selling Stockholder's business and, at the time of its purchase of such securities such Selling Stockholder had no agreements or understandings, directly or indirectly, with any person to distribute any such securities.

The Company has advised each Selling Stockholder that it may not use shares registered on this Registration Statement to cover short sales of Common Stock made prior to the date on which this Registration Statement shall have been declared effective by the Commission. If a Selling Stockholder uses this prospectus for any sale of the common stock, it will be subject to the prospectus delivery requirements of the Securities Act. The Selling Stockholders will be responsible to comply with the applicable provisions of the Securities Act and Exchange Act, and the rules and regulations thereunder promulgated, including, without limitation, Regulation M, as applicable to such Selling Stockholders in connection with resales of their respective shares under this Registration Statement.

The Company is required to pay all fees and expenses incident to the registration of the shares, but the Company will not receive any proceeds from the sale of the common stock. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

LEGAL OPINION

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

EXPERTS

The consolidated financial statements of Neoprobe Corporation as of December 31, 2003 and 2002, and for the years then ended, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, an independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

ADDITIONAL INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file reports, proxy statements and other information with the Securities and Exchange Commission. These reports, proxy statements and other information may be inspected and copied at the public reference facilities maintained by the Securities and Exchange Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 and at the Securities and Exchange Commission's regional

offices located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 233 Broadway, New York, New York 10279. You can obtain copies of these materials from the Public Reference Section of the Securities and Exchange Commission upon payment of fees prescribed by the Securities and Exchange Commission. You may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission's Web site contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of that site is http://www.sec.gov.

We have filed a registration statement on Form SB-2 with the Securities and Exchange Commission under the Securities Act with respect to the securities offered in this prospectus. This prospectus, which is filed as part of a registration statement, does not contain all of the information set forth in the registration statement, some portions of which have been omitted in accordance with the Securities and Exchange Commission's rules and regulations. Statements made in this prospectus as to the contents of any contract, agreement or other document referred to in this prospectus are not necessarily complete and are qualified in their entirety by reference to each such contract, agreement or other document which is filed as an exhibit to the registration statement. The registration statement may be inspected without charge at the public reference facilities maintained by the Securities and Exchange Commission, and copies of such materials can be obtained from the Public Reference Section of the Securities and Exchange Commission at prescribed rates.

NEOPROBE CORPORATION and SUBSIDIARY

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Neoprobe Corporation:

We have audited the accompanying consolidated balance sheets of Neoprobe Corporation and subsidiary as of December 31, 2003 and 2002, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Neoprobe Corporation and subsidiary as of December 31, 2003 and 2002, and the results of their operations and their cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

/s/ KPMG LLP

Columbus, Ohio
March 29, 2004

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS

December 31, 2003 and 2002

ASSETS	2003

Current assets:	
Cash and cash equivalents	$ 1,588,760
Accounts receivable, net	1,107,800
Inventory	1,008,326
Prepaid expenses and other	346,449
Total current assets	4,051,335
Property and equipment	2,237,741
Less accumulated depreciation and amortization	1,875,028
	362,713
Patents and trademarks	3,156,101
Non-compete agreements	584,516
Acquired technology	237,271
	3,977,888
Less accumulated amortization	1,042,373
	2,935,515
Other assets	35,479
Total assets	$ 7,385,042

CONTINUED
NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS, CONTINUED

LIABILITIES AND STOCKHOLDERS' EQUITY	2003
Current liabilities:	
Notes payable to finance companies	$ 192,27
Capital lease obligations, current	9,73
Accrued liabilities	227,30
Accounts payable	225,03
Deferred revenue, current	886,65
Total current liabilities	1,540,99
Note payable to CEO, net of discount	237,29
Note payable to investor, net of discount	217,50
Capital lease obligations	24,00
Deferred revenue	68,93

Contingent consideration for acquisition	
Other liabilities	37,35
Total liabilities	2,126,09
Commitments and contingencies	
Stockholders' equity:	
Preferred stock; $.001 par value; 5,000,000 shares authorized at December 31, 2003 and 2002; none issued and outstanding (500,000 shares designated as Series A, $.001 par value, at December 31, 2003 and 2002; none outstanding)	
Common stock; $.001 par value; 75,000,000 shares authorized; 51,520,723 shares issued and outstanding at December 31, 2003; 36,502,183 shares issued and outstanding at December 31, 2002	51,52
Additional paid-in capital	127,684,55
Accumulated deficit	(122,477,131
Total stockholders' equity	5,258,94
Total liabilities and stockholders' equity	$ 7,385,04

See accompanying notes to consolidated financial statements.

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS

	YEARS ENDED
	2003
Revenues:	
Net sales	$ 5,564,275
License and other revenue	945,633
Total revenues	6,509,908
Cost of goods sold	3,124,978
Gross profit	3,384,930
Operating expenses:	
Research and development	1,893,520

Selling, general and administrative	3,102,535
Acquired in-process research and development	-
Total operating expenses	4,996,055
Loss from operations	(1,611,125)
Other income (expense):	
Interest income	9,423
Interest expense	(186,912)
Other	(10,381)
Total other (expenses) income	(187,870)
Net loss	$ (1,798,995)
Net loss per common share:	
Basic	$ (0.04)
Diluted	$ (0.04)
Weighted average shares outstanding:	
Basic	40,337,679
Diluted	40,337,679

See accompanying notes to consolidated financial statements.

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	COMMON STOCK		ADDITIONAL PAID-IN
	SHARES	AMOUNT	CAPITAL
Balance, December 31, 2001	36,449,067	$ 36,449	$ 124,581,800
Issued to 401(k) plan at $0.46	53,116	53	24,579
Issued warrants as fees to investor relations firm	-	-	14,018
Registration costs paid in connection with stock purchase agreement	-	-	(24,418)
Registration costs paid in connection with acquisition of subsidiary	-	-	5,791
Net loss	-	-	-
Balance, December 31, 2002	36,502,183	36,502	124,601,770
Issued contingent shares related to 2001 acquisition of subsidiary	2,085,826	2,086	283,100
Removed restrictions on stock			

issued to executives	-	-	39,990
Issued warrants in connection with issuance of notes payable	-	-	112,994
Issued to 401(k) plan at $0.26	100,327	100	25,852
Issued shares in connection with stock purchase agreement, net of offering costs	480,331	481	143,212
Issued shares and warrants in connection with private placement, net of offering costs	12,173,914	12,174	2,420,742
Issued shares and warrants as fees to investment banking firms	178,142	178	56,895
Net loss	-	-	-
Balance, December 31, 2003	51,520,723	$ 51,521	$ 127,684,555

See accompanying notes to consolidated financial statements.

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended
	2003
Cash flows from operating activities:	
Net loss	$ (1,798,995)
Adjustments to reconcile net loss to net cash used in operating activities:	
Depreciation of property and equipment	246,975
Amortization of intangible assets	429,360
Provision for bad debts	49,582
Net loss on disposal and abandonment of assets	55,235
Amortization of debt discount and offering costs	81,449
Acquired in-process research and development	-
Other	134,332
Change in operating assets and liabilities:	
Accounts receivable	(411,275)
Inventory	169,135
Prepaid expenses and other assets	471,958
Accrued liabilities and other liabilities	(353,186)
Accounts payable	(207,108)
Deferred revenue	(681,897)
Net cash used in operating activities	(1,814,435)
Cash flows from investing activities:	
Purchases of available-for-sale securities	-
Proceeds from sales of available-for-sale securities	-
Proceeds from maturities of available-for-sale securities	-
Purchases of property and equipment	(75,456)
Proceeds from sales of property and equipment	250
Patent and trademark costs	(34,270)

Subsidiary acquisition costs	-
Net cash used in investing activities	(109,476)
Cash flows from financing activities:	
Proceeds from issuance of common stock	2,943,797
Payment of offering costs	(370,056)
Proceeds from line of credit	-
Payments under line of credit	-
Proceeds from notes payable, net of offering costs	458,334
Payment of notes payable	(204,983)
Payments under capital leases	(14,946)
Net cash provided by (used in) financing activities	2,812,146
Net increase (decrease) in cash and cash equivalents	888,235
Cash and cash equivalents, beginning of year	700,525
Cash and cash equivalents, end of year	$ 1,588,760

See accompanying notes to consolidated financial statements.

1. Organization and Summary of Significant Accounting Policies:

a. ORGANIZATION AND NATURE OF OPERATIONS: Neoprobe Corporation (Neoprobe or we), a Delaware corporation, is engaged in the development and commercialization of innovative surgical and diagnostic products that enhance patient care by meeting the critical decision making needs of healthcare professionals. We currently manufacture two lines of medical devices: the first is a line of gamma radiation detection equipment used in the application of intraoperative lymphatic mapping (ILM), and the second is a line of blood flow monitoring devices for a variety of diagnostic and surgical applications.

Our gamma detection device products are marketed throughout most of the world through a distribution arrangement with Ethicon Endo-Surgery, Inc. (EES), a Johnson and Johnson company. For the years ended December 31, 2003 and 2002, 91% of net sales were made to EES. The loss of this customer would have a significant adverse effect on our operating results.

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

We also have developmental and/or intellectual property rights related to two drugs that might be used in connection with gamma detection devices in cancer surgeries. The first, RIGScan(R) CR49, is intended to be used to help surgeons locate cancerous tissue during colorectal cancer surgeries. The second, LymphoseekTM, is intended to be used in tracing the spread of certain solid tumor cancers. Both of these drug products are still in development and must be approved by the appropriate regulatory bodies before they

can be sold in any markets.

b. PRINCIPLES OF CONSOLIDATION: Our consolidated financial statements include the accounts of our company and our wholly-owned subsidiary. All significant inter-company accounts were eliminated in consolidation.

c. FAIR VALUE OF FINANCIAL INSTRUMENTS: The following methods and assumptions were used to estimate the fair value of each class of financial instruments:

(1) Cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities: The carrying amounts approximate fair value because of the short maturity of these instruments.

(2) Notes payable to finance companies: The fair value of our debt is estimated by discounting the future cash flows at rates currently offered to us for similar debt instruments of comparable maturities by banks or finance companies. At December 31, 2003 and 2002, the carrying values of these instruments approximate fair value.

(3) Note payable to CEO: The fair value of our debt is presented as the face amount of the note less the unamortized discount related to the warrants to purchase common stock issued in connection with the note. At December 31, 2003, the carrying value of the note approximates fair value.

(4) Note payable to outside investor: The fair value of our debt is presented as the face amount of the note less the unamortized discounts related to the conversion feature and the warrants to purchase common stock issued in connection with the note. At December 31, 2003, the carrying value of the note approximates fair value.

d. CASH AND CASH EQUIVALENTS: There were no cash equivalents at December 31, 2003 or 2002. None of the cash presented in the December 31, 2003 and 2002 balance sheets is pledged or restricted in any way.

e. INVENTORY: All components of inventory are valued at the lower of cost (first-in, first-out) or market. We adjust inventory to market value when the net realizable value is lower than the carrying cost of the inventory. Market value is determined based on recent sales activity and margins achieved.

The components of net inventory at December 31, 2003 and 2002 are as follows:

	2003	2002
Materials and component parts	$ 747,788	$ 760,540
Work in process	-	59,888
Finished goods	260,538	371,490
	$1,008,326	$1,191,918

During 2003, we wrote off $70,000 of excess and obsolete Quantix(R)-related materials, primarily due to potential design changes. During 2002, we wrote off $214,000 of BlueTip(R) probe-related inventory that we did not believe had ongoing value to the business.

f. PROPERTY AND EQUIPMENT: Property and equipment are stated at cost. Property and equipment under capital leases are stated at the present value of minimum lease payments. Depreciation is computed using the straight-line method over the estimated useful lives of the depreciable assets ranging from 2 to 7 years, and includes amortization related to equipment under capital leases. Maintenance and repairs are charged to expense as incurred, while renewals and improvements are capitalized. Property and equipment includes $80,000 and $51,000 of equipment under capital leases with accumulated amortization of $48,000 and $30,000 at December 31, 2003 and 2002, respectively. During 2003 and 2002, we recorded losses of $20,000 and $2,000, respectively, on the disposal of property and equipment. During 2002, we recorded general and administrative expenses of $71,000 related to the impairment of BlueTip probe production equipment that we did not believe had ongoing value to the business.

The major classes of property and equipment are as follows:

	2003	2002
Production machinery and equipment	$ 1,050,806	$ 981,355
Other machinery and equipment, primarily computers and research equipment	599,193	761,698
Furniture and fixtures	358,760	358,155
Leasehold improvements	117,547	121,808
Software	111,435	123,429
	$ 2,237,741	$ 2,346,445

g. INTANGIBLE ASSETS: Intangible assets consist primarily of patents and other acquired intangible assets. Intangible assets are stated at cost, less accumulated amortization. Patent costs are amortized using the straight-line method over the estimated useful lives of the patents of 5 to 15 years. Patent application costs are deferred pending the outcome of patent applications. Costs associated with unsuccessful patent applications and abandoned intellectual property are expensed when determined to have no recoverable value. Non-compete agreements and acquired technology are amortized using the straight-line method over their estimated useful lives of four years and seven years, respectively. We evaluate the potential alternative uses of all intangible assets, as well as the recoverability of the carrying values of intangible assets on a recurring basis. (See also Note 10(b) regarding purchase price adjustments made in 2002 affecting intangible assets acquired as a part of our acquisition of Cardiosonix.)

The major classes of intangible assets are as follows:

	DECEMBER 31, 2003		DECEMBER
	GROSS CARRYING AMOUNT	ACCUMULATED AMORTIZATION	GROSS CARRYING AMOUNT
Patents and trademarks	$3,156,101	$ 678,160	$3,129,031
Non-compete agreements	584,516	295,486	584,516
Acquired technology	237,271	68,727	237,271
Total	$3,977,888	$ 1,042,373	$3,950,818

During 2003 and 2002, we recorded general and administrative expenses of $459,000 and $462,000, respectively, of intangible asset amortization expense. Of those amounts, $30,000 and $68,000, respectively, related to the abandonment of gamma detection patents and patent applications that were deemed no longer recoverable or part of our ongoing business.

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

	ESTIMATED AMORTIZATION EXPENSE
For the year ended 12/31/2004	$ 427,285
For the year ended 12/31/2005	427,285
For the year ended 12/31/2006	282,770
For the year ended 12/31/2007	214,545
For the year ended 12/31/2008	204,002

h. REVENUE RECOGNITION

(1) PRODUCT SALES: We derive revenues primarily from sales of our medical devices. We generally recognize sales revenue when the products are shipped and the earnings process has been completed. Our customers have no right to return products purchased in the ordinary course of business.

Sales prices on gamma detection products sold to EES are subject to retroactive annual adjustment based on a fixed percentage of the actual sales prices achieved by EES on sales to end customers made during each fiscal year, subject to a minimum (i.e., floor) price. To the extent that we can reasonably estimate the end customer prices received by EES, we record sales to EES based upon these estimates. To the extent that we are not able to reasonably estimate end customer sales prices related to certain products sold to EES, we record revenue related to these product sales at the floor price provided for under our distribution agreement with EES.

We recognize revenue related to the sales of products to be used for demonstration units when products are shipped and the

earnings process has been completed. Our distribution agreements do not

permit return of demonstration units in the ordinary course of business nor do we have any performance obligations other than normal product warranty obligations. To the extent that the earnings process has not been completed, revenue is deferred. To the extent we enter into multiple-element arrangements, we allocate revenue based on the relative fair value of the elements.

(2) EXTENDED WARRANTY REVENUE: We derive revenues from the sale of extended warranties covering our medical devices over periods of one to four years. We recognize revenue from extended warranty sales on a pro-rata basis over the period covered by the extended warranty. Expenses related to the extended warranty are recorded when incurred.

(3) SERVICE REVENUE: We derive revenues from the repair and service of our medical devices that are in use beyond the term of the original twelve-month warranty and that are not covered by an extended warranty. We recognize revenue from repair and service activities once the activities are complete and the repaired or serviced device has been returned to the customer.

(4) LICENSE REVENUE: We recognize license revenue in connection with our distribution agreement with EES on a straight-line basis over the five-year initial term of the agreement based on our obligations to provide ongoing support for the intellectual property being licensed such as patent maintenance and regulatory filings. As the license relates to intellectual property held or in-licensed by us, we incur no significant cost associated with the recognition of this revenue.

i. RESEARCH AND DEVELOPMENT COSTS: All costs related to research and development are expensed as incurred.

j. INCOME TAXES: Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities, and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

k. STOCK OPTION PLANS: At December 31, 2003, we have three stock-based employee compensation plans (See Note 8(a).). We apply the intrinsic value-based method of accounting prescribed by Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees, and related Interpretations, in accounting for our stock options. As such, compensation expense is recorded on the date of grant and amortized over the period of service only if the current market price of the underlying stock exceeds the exercise

price. No stock-based employee compensation cost related to options is reflected in net income (loss), as all options granted under those plans had an exercise price equal to the market value of the underlying common stock on the date of grant. However, we did incur $39,990 of compensation expense related to the vesting of restricted stock.

The following table illustrates the effect on net income (loss) and earnings (loss) per share if compensation cost for our stock-based compensation plans had been determined based on the fair value at the grant dates for awards under those plans consistent with Statement of Financial Accounting Standards (SFAS) No. 123, Accounting for Stock-Based Compensation:

	YEARS ENDED DECEM
	2003
Net loss, as reported	$ (1,798,995)
Add: Total stock-based employee compensation expense included in reported net loss	39,990
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(241,437)
Pro forma net loss	$ (2,000,442)
Loss per common share:	
As reported (basic and diluted)	$ (0.04)
Pro forma (basic and diluted)	$ (0.05)

l. EQUITY ISSUED TO NON-EMPLOYEES: We account for equity instruments granted to non-employees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force Issue No. 96-18, Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services. All transactions in which goods or services are the consideration received for the issuance of equity instruments are accounted for based on the fair value of the consideration received or the equity instrument issued, whichever is more reliably measurable. The measurement date of the fair value of the equity instrument issued is the earlier of the date on which the counterpart's performance is complete or the date on which it is probable that performance will occur.

m. USE OF ESTIMATES: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results

could differ from those estimates.

n. COMPREHENSIVE INCOME (LOSS): We had no accumulated other comprehensive income (loss) activity during the years ended December 31, 2003 and 2002.

o. 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. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

2. EARNINGS PER SHARE:

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

	YEAR ENDED DECEMBER 31, 2003		YEA DECEMBE
	BASIC EARNINGS PER SHARE	DILUTED EARNINGS PER SHARE	BASIC EARNINGS PER SHARE
Outstanding shares	51,520,723	51,520,723	36,502,183
Effect of weighting changes in outstanding shares	(11,053,044)	(11,053,044)	(16,987)
Contingently issuable shares	(130,000)	(130,000)	(440,000)
Adjusted shares	40,337,679	40,337,679	36,045,196

There is no difference in basic and diluted loss per share related to 2003 or 2002. Basic and diluted loss per share for the year ended December 31, 2002 include 2,085,826 common shares that became issuable to Cardiosonix upon satisfaction of a certain developmental milestone event on December 30, 2002 (See Note 10(b).). The net loss per common share for 2003 and 2002 excludes the number of common shares issuable upon exercise of outstanding stock options and warrants into our common stock since such inclusion would be anti-dilutive.

3. ACCOUNTS RECEIVABLE AND CONCENTRATIONS OF CREDIT RISK:

Accounts receivable at December 31, 2003 and 2002, net of allowance for doubtful accounts of $46,000 and $29,095, respectively, consist of the following:

	2003	2002
Trade	$1,063,614	$ 623,213
Other	44,186	122,894
	$1,107,800	$ 746,107

At December 31, 2003 and 2002, approximately 85% and 86%, respectively, of net accounts receivable are due from EES. We do not believe we are exposed to significant credit risk related to EES based on the overall financial strength and credit worthiness of the customer and its parent company. We believe that we have adequately addressed other credit risks in estimating the allowance for doubtful accounts.

We estimate an allowance for doubtful accounts based on a review and assessment of specific accounts receivable and write off accounts when deemed uncollectible. The activity in the allowance for doubtful accounts for the years ended December 31, 2003 and 2002 is as follows:

	2003	2002
Allowance for doubtful accounts at beginning of year	$ 29,095	$ 39,670
Provision for bad debts	49,582	28,751
Write-offs charged against the allowance	(32,677)	(39,326)
Allowance for doubtful accounts at end of year	$ 46,000	$ 29,095

4. ACCRUED LIABILITIES AND ACCOUNTS PAYABLE:

Accrued liabilities at December 31, 2003 and 2002 consist of the following:

	2003	2002
Contracted services and other	$ 107,843	$ 164,634
Compensation	66,463	177,991
Warranty reserve	53,000	35,000
Inventory purchases	-	19,536
	$ 227,306	$ 397,161

Accounts payable at December 31, 2003 and 2002 consist of the following:

	2003	2002
Trade	$ 146,117	$ 391,858
Other	78,915	40,282

	$ 225,032	$ 432,140

5. PRODUCT WARRANTY:

We warrant our products against defects in design, materials, and workmanship generally for a period of one year from the date of sale to the end customer. Our accrual for warranty expenses is adjusted periodically to reflect actual experience. EES also reimburses us for a portion of warranty expense incurred based on end customer sales they make during a given fiscal year. Payments charged against the reserve are disclosed net of EES' reimbursement.

The activity in the warranty reserve account for the years ended December 31, 2003 and 2002 is as follows:

	2003	2002
Warranty reserve, at beginning of year	$ 35,000	$ 90,000
Provision for warranty claims and changes in reserve for warranties	18,464	31,043
Payments charged against the reserve	(464)	(86,043)
Warranty reserve, at end of year	$ 53,000	$ 35,000

6. NOTES PAYABLE:

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued a note in the principal amount of $250,000. The note was secured by general assets of the company, excluding accounts receivable. Interest accrues on the note at 8.5% per annum, payable monthly, and the note was originally due on June 30, 2004. In addition, we issued Mr. Bupp 375,000 warrants to purchase common stock at an exercise price of $0.13 per share. See Note 16(b).

During April 2003, we also completed a bridge loan agreement with an outside investor for an additional $250,000. In consideration for the loan, we issued a note in the principal amount of $250,000. The note was secured by general assets of the company, excluding accounts receivable. The note bore interest at 9.5% per annum, payable monthly, was convertible into common stock and was due on June 30, 2004. Fifty percent of the principal and accrued interest of the note was convertible into common stock at a 15% discount to the closing market price on the date of conversion, subject to

a floor conversion price of $0.10. The remaining 50% of the principal and accrued interest was convertible into common stock based on a 15% discount to the closing market price on the date of conversion, subject to a floor conversion price of $0.10 and a ceiling conversion price of $0.20. In addition, we issued the investor 500,000 warrants to purchase common stock at an exercise price of $0.13 per share. See Note 16(b).

The per share value of the warrants issued to Mr. Bupp and the outside investor was $0.10 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.9%, volatility of 139% and no expected dividend rate. The total estimated fair values for the warrants issued to Mr. Bupp and the outside

investor were $31,755 and $40,620, respectively. These amounts were recorded as a discount on the notes and are being amortized over the period of the notes. At December 31, 2003, the unamortized discounts related to Mr. Bupp's note and the note to the outside investor totaled $12,702 and $16,248, respectively. The intrinsic value of the conversion feature of the note to the outside investor was estimated at $40,620 based on the effective conversion price at the date of issuance and was recorded as an additional discount on the note. The additional discount related to the conversion feature is being amortized over the period of the note. At December 31, 2003 the additional unamortized discount related to the conversion feature totaled $16,248.

7. INCOME TAXES:

As of December 31, 2003, our net deferred tax assets in the U.S. were approximately $35.7 million. Approximately $30.8 million of the deferred tax assets relate principally to net operating loss carryforwards of approximately $90.6 million available to offset future taxable income, if any, through 2023. An additional $4.3 million relates to tax credit carryforwards (principally research and development) available to reduce future income tax liability after utilization of tax loss carryforwards, if any, through 2023. The remaining $596,000 relates to temporary differences between the carrying amount of assets and liabilities and their tax bases. Due to the uncertainty surrounding the realization of these favorable tax attributes in future tax returns, all of the net deferred tax assets have been fully offset by a valuation allowance at December 31, 2003.

As of December 31, 2003, Cardiosonix had net deferred tax assets in Israel of approximately $1.8 million, primarily related to net operating loss carryforwards of approximately $3.7 million available to offset future taxable income, if any. Under current Israeli tax law, net operating loss carryforwards do not expire. Due to the uncertainty surrounding the realization of these favorable tax attributes in future tax returns, all of the net deferred tax assets have been fully offset by a valuation allowance at December 31, 2003. Since a valuation allowance was recognized for the deferred tax asset for Cardiosonix' deductible temporary differences and operating loss carryforwards at the acquisition date, the tax benefits for those items that are first recognized (that is, by elimination of the valuation allowance) in financial statements after the acquisition date shall be applied (a) first to reduce to zero other noncurrent intangible assets related to the acquisition and (b) second to reduce income tax expense.

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

8. EQUITY:

a. STOCK OPTIONS: At December 31, 2003, we have three stock-based compensation plans. Under the Amended and Restated Stock Option and Restricted Stock Purchase Plan (the Amended Plan), the 1996 Stock Incentive Plan (the 1996 Plan), and the 2002 Stock Incentive Plan (the 2002 Plan), we may grant incentive stock options, nonqualified stock options, and restricted stock awards to full-time employees, and nonqualified stock options and restricted awards may be granted to our

consultants and agents. Total shares authorized under each plan are 2 million shares, 1.5 million shares and 3 million shares, respectively. Under all three plans, the exercise price of each option is greater than or equal to the closing market price of our common stock on the day prior to the date of the grant.

Options granted under the Amended Plan, the 1996 Plan and the 2002 Plan generally vest on an annual basis over three years. Outstanding options under the plans, if not exercised, generally expire ten years from their date of grant or 90 days from the date of an optionee's separation from employment with us.

The fair value of each option grant was estimated on the date of the grant using the Black-Scholes option-pricing model with the following assumptions for 2003 and 2002, respectively: average risk-free interest rates of 2.6% and 4.0%; expected average lives of three to four years for each of the years presented; no dividend rate for any year; and volatility of 146% for 2003 and 145% for 2002. The weighted average fair value of options granted in 2003 and 2002 was $0.16 and $0.36, respectively.

A summary of the status of stock options under our stock option plans as of December 31, 2003 and 2002, and changes during the years ended on those dates is presented below:

	2003		2002	
	OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE	OPTIONS	
Outstanding at beginning of year	2,317,725	$ 0.70	1,862,123	
Granted	1,030,000	$ 0.18	905,000	
Forfeited	(416,417)	$ 0.41	(449,398)	
Exercised	-	-	-	
Outstanding at end of year	2,931,308	$ 0.56	2,317,725	

Included in outstanding options as of December 31, 2003, are 100,000 options exercisable at an exercise price of $2.50 per share that vest on the meeting of certain company achievements.

The following table summarizes information about our stock options outstanding at December 31, 2003:

	OPTIONS OUTSTANDING		
	NUMBER	WEIGHTED	NUMB

RANGE OF EXERCISE PRICES	OUTSTANDING AS OF DECEMBER 31, 2003	AVERAGE REMAINING CONTRACTUAL LIFE	WEIGHTED AVERAGE EXERCISE PRICE	EXERCISA OF DECEMBE 200
$ 0.13 - $ 0.40	906,667	9 years	$ 0.19	
$ 0.41 - $ 0.50	1,526,668	7 years	$ 0.44	
$ 0.60 - $ 1.50	325,773	6 years	$ 1.04	
$ 2.50 - $ 5.63	172,200	1 year	$ 2.67	
	2,931,308	7 years	$ 0.56	1,

b. RESTRICTED STOCK: During the first quarter of 2003, we vested 310,000 shares of previously restricted stock related to new or amended employment agreements of three of our officers. We recognized $39,990 of compensation expense related to this transaction in the first quarter of 2003. At December 31, 2003, we have 130,000 restricted shares outstanding, all of which are pending cancellation due to

failure to vest under the terms of issuance of these shares. Restricted shares, if any, generally vest on a change of control of our company as defined in the specific grant agreements. As a result, we have not recorded any deferred compensation related to past grants of restricted stock due to the inability to assess the probability of the vesting event.

c. STOCK WARRANTS: At December 31, 2003, there are 8.5 million warrants outstanding to purchase our common stock. The warrants are exercisable at prices ranging from $0.13 to $5.00 per share with a weighted average exercise price per share of $0.30. See Note 16 (b), (e) and (f).

The following table summarizes information about our outstanding warrants at December 31, 2003:

	EXERCISE PRICE	NUMBER OF WARRANTS	EXPIRATION DATE
Series M	$ 5.00	50,000	February 2004
Series O	$ 0.75	25,000	October 2005
Series O	$ 0.75	25,000	October 2006
Series P	$ 0.30	50,000	June 2005
Series Q	$ 0.13	875,000	April 2008
Series R	$ 0.28	6,086,959	October 2008
Series S	$ 0.28	1,432,609	October 2008
	$ 0.30	8,544,568	

d. COMMON STOCK RESERVED: Shares of authorized common stock have been reserved for the exercise of all options and warrants outstanding.

e. COMMON STOCK PURCHASE AGREEMENT: On November 19, 2001, we entered into

a common stock purchase agreement with an investment fund, Fusion Capital Fund II, LLC (Fusion) for the issuance and purchase of our common stock. Under the stock purchase agreement, Fusion committed to purchase up to $10 million of our common stock over a forty-month period that commenced in May 2002. A registration statement registering for resale up to 5 million shares of our common stock became effective on April 15, 2002. Under the terms of the agreement, we can request daily drawdowns, subject to a daily base amount currently set at $12,500. The number of shares we are to issue to Fusion in return for that money will be based on the lower of (a) the closing sale price for our common stock on the day of the draw request or (b) the average of the three lowest closing sales prices for our common stock during a twelve day period prior to the draw request. However, no shares may be sold to Fusion at lower than a floor price currently set at $0.30, which may be reduced by us, but in no case below $0.20 without Fusion's prior consent. Upon execution of the common stock purchase agreement in 2001, we issued 449,438 shares of our common stock to Fusion as a partial payment of the commitment fee. During 2003, we sold Fusion a total of 473,869 shares of common stock and realized net proceeds of $143,693. We issued Fusion 6,462 shares of common stock during 2003 for commitment fees due to Fusion related to the sales of our common stock to them. See Note 16(e).

f. PRIVATE PLACEMENT: During the second and third quarters of 2003, we engaged the services of two investment banking firms to assist us in raising capital, Alberdale Capital, LLC (Alberdale) and Trautman Wasserman & Company, Inc. (Trautman Wasserman). In exchange for Alberdale's services, we agreed to pay them a monthly retainer of $10,000, half payable in cash and half payable in common stock, and we agreed to pay them additional compensation upon the successful completion of a private placement of our securities. We terminated the agreement with Alberdale in September 2003, but agreed to issue them a total of 150,943 shares of common stock in payment for one half of their retainer. The fair market value of $26,000 related to the shares issued to Alberdale was recorded as general and administrative expense in 2003. In addition, Series S warrants to purchase 78,261 shares of common stock were issued in exchange for

their assistance in arranging an accounts receivable financing transaction. The warrants have an exercise price of $0.28 per share. The per share value of these warrants was $0.33 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.1%, volatility of 150% and no expected dividend rate. We recorded the estimated fair market value of the warrants issued as additional interest expense. In exchange for the services of Trautman Wasserman, we agreed to pay a retainer of $10,000, payable in cash and common stock, and to pay further compensation on successful completion of a private placement. We agreed to issue Trautman Wasserman a total of 27,199 shares of common stock in payment for one half of their retainer. The fair market value of $5,000 related to the shares issued to Trautman Wasserman was recorded as general and administrative expense in 2003. The services of Trautman Wasserman were terminated in September 2003.

In November 2003, we completed a $2.8 million placement of common stock and warrants for net proceeds of $2.4 million. In the placement, 12,173,914 shares of common stock were issued at $0.23 per share, and Series R warrants were issued to purchase an additional 6,086,959 shares of common stock at $0.28 per share. In addition, we paid

$291,000 in cash and issued 1,354,348 Series S warrants to purchase common stock at $0.28 per share as fees to the placement agents. All warrants issued in connection with the placement expire in October 2008. The per share value of these warrants was $0.31 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.2%, volatility of 151% and no expected dividend rate. A registration statement registering for resale the common stock and warrants issued in the private placement was declared effective on December 17, 2003. See Note 16(e).

9. SHAREHOLDER RIGHTS PLAN:

During July 1995, our board of directors adopted a shareholder rights plan. Under the plan, one "Right" is to be distributed for each share of common stock held by shareholders on the close of business on August 28, 1995. The Rights are exercisable only if a person and its affiliate commences a tender offer or exchange offer for 15% or more of our common stock, or if there is a public announcement that a person and its affiliate has acquired beneficial ownership of 15% or more of the common stock, and if we do not redeem the Rights during the specified redemption period. Initially, each Right, upon becoming exercisable, would entitle the holder to purchase from us one unit consisting of 1/100th of a share of Series A Junior Participating preferred stock at an exercise price of $35 (which is subject to adjustment). Once the Rights become exercisable, if any person, including its affiliate, acquires 15% or more of our common stock, each Right other than the Rights held by the acquiring person and its affiliate becomes a right to acquire common stock having a value equal to two times the exercise price of the Right. We are entitled to redeem the Rights for $0.01 per Right at any time prior to the expiration of the redemption period. The shareholder rights plan and the Rights will expire on August 28, 2005. The board of directors may amend the shareholder rights plan, from time to time, as considered necessary.

10. SEGMENTS AND SUBSIDIARY INFORMATION:

a. SEGMENTS: We own or have rights to intellectual property involving two primary types of medical device products, including gamma detection instruments currently used primarily in the application of ILM, and blood flow measurement devices.

The information in the following table is derived directly from each segments' internal financial reporting used for corporate management purposes. Selling, general and administrative costs and other income, including amortization, interest and other costs that relate primarily to corporate activity, are not currently allocated to the operating segments for financial reporting purposes.

($ AMOUNTS IN THOUSANDS) 2003	GAMMA DETECTION	BLOOD FLOW	UNALLOCATE
Net sales:			
United States(1)	$ 5,284	$ -	$
International	35	245	
License and other revenue	946	-	
Research and development expenses	(668)	(1,226)	

Selling, general and administrative expenses	-	-	(3,10
Income (loss) from operations(2)	2,657	(1,165)	(3,10
Other expenses	-	-	(18
Total assets, net of depreciation and amortization:			
United States	1,728	146	1,9
Cardiosonix Ltd.	-	3,546	
Capital expenditures	13	50	
2002			
Net sales			
United States(1)	$ 3,234	$ -	$
International	90	59	
License and other revenue	1,538	-	
Research and development expenses	(974)	(1,350)	
Selling, general and administrative Expenses	-	-	(3,26
Acquired in-process research and development	-	28	
Income (loss) from operations(2)	1,554	(1,280)	(3,26
Other income	-	-	
Total assets, net of depreciation and amortization:			
United States	2,010	6	1,2
Cardiosonix Ltd.	-	3,843	
Capital expenditures	61	119	

(1) All sales to EES are made in the United States. EES distributes the product globally through its international affiliates.
(2) Income (loss) from operations does not reflect the allocation of selling, general and administrative costs to the operating segments.

b. SUBSIDIARY: On December 31, 2001, we acquired 100 percent of the outstanding common shares of Cardiosonix, an Israeli company, for $4.5 million. We accounted for the acquisition under SFAS No. 141, Business Combinations, and certain provisions of SFAS No. 142, Goodwill and Other Intangible Assets. The results of Cardiosonix' operations have been included in our consolidated results from the date of acquisition. Cardiosonix is involved in the development and commercialization of blood flow measurement technology. Cardiosonix currently has two products in the early stages of commercialization and another product in development.

The aggregate purchase price included common stock valued at $4,271,095; payment of vested options of Cardiosonix employees in the amount of $17,966; and acquisition costs of $167,348. The value of the 9,714,737 common shares issued on December 31, 2001 was determined based on the average market price of our common shares over the five-day period before and after the terms of the acquisition were agreed to and announced. A contingent payment of 2,085,826 common shares was also due upon the satisfaction of a certain developmental milestone event.

In accordance with SFAS No. 141, we recorded the contingent amount as if it were a liability in the amount of $453,602 at the date of

acquisition. As a result of the decline in the trading price of our common stock during 2002, the contingent payment was re-valued at $288,053 upon satisfaction of the milestone event on December 30, 2002. The value of the contingent consideration was determined based on the market price of our common shares. The re-valuation of the contingent shares and additional acquisition costs of $24,000 required us to adjust the final purchase price, resulting in the pro-rata adjustment of certain assets acquired in the acquisition as well as the charge recorded related to in-process research and development (IPR&D). As a result of the adjustment, the balances recorded at December 31, 2001 for patents and trademarks, non-compete agreements, acquired technology, IPR&D and property and equipment were decreased by $84,000, $19,000, $8,000, $28,000 and $2,000, respectively, as of December 31, 2002.

As a part of the acquisition, we also entered into a royalty agreement with the three founders of Cardiosonix. Under the terms of the royalty agreement, which expires December 31, 2006, we are obligated to pay the founders an aggregate one percent royalty on up to $120 million in net revenue generated by the sale of Cardiosonix blood flow products through 2006.

11. AGREEMENTS:

a. SUPPLY AGREEMENTS: In December 1997, we entered into an exclusive supply agreement with eV Products (eV), a division of II-VI Incorporated, for the supply of certain crystals and associated electronics to be used in the manufacture of our proprietary line of hand-held gamma detection instruments. The original term of the agreement expired on December 31, 2002 and was automatically extended during 2002 through December 31, 2005; however, the agreement is no longer exclusive for the final three years. During 2001, we built up our stock of crystal modules in order to take advantage of significant quantity price breaks. Our stock of crystal modules was consumed during 2003; therefore we resumed purchasing crystal modules in the fourth quarter of 2003. As a result, total purchases under the supply agreement were $138,000 and $82,000 for the years ended December 31, 2003 and 2002, respectively. We have issued a purchase order for $298,000 of crystal modules for delivery of product through September 2004.

In October 2001, we entered into a manufacturing and supply agreement with UMM Electronics, Inc. (UMM), a Leach Technology Group company, for the exclusive manufacture of the neo2000(R) control unit and 14mm probe. During 2003, we terminated our agreement with UMM for the manufacture of the neo2000 control unit and 14mm probe. As a part of the termination, we were required to purchase $97,000 in residual materials that were not used by UMM, a portion of which will be used in production at a new contract manufacturer. Total purchases under the manufacturing and supply agreement were $1.5 million and $1.2 million for the years ended December 31, 2003 and 2002, respectively.

b. MARKETING AND DISTRIBUTION AGREEMENTS: During 1999, we entered into a distribution agreement with EES covering our gamma detection devices used in ILM. The initial five-year term expires December 31, 2004, with options to extend for two successive two-year terms (See Note 16(d).). Under the agreement, we manufacture and sell our current line of ILM products exclusively to EES, who distributes the products globally. EES agreed to purchase minimum quantities of our products over the first three years of the term of the agreement and to reimburse us for certain research and development costs and a portion of our warranty costs. EES satisfied both its minimum purchase and reimbursement

requirements during 2002. We are obligated to continue certain product maintenance activities and to provide ongoing regulatory support for the products.

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

Under the agreement, EES received a non-exclusive worldwide license to our ILM intellectual property to make and sell other products that may be developed using our ILM intellectual property. The term of the license is the same as that of the agreement. EES paid us a non-refundable license fee of $4 million. We are recognizing the license fee as revenue on a straight-line basis over the five-year initial term of the agreement. If we terminate the agreement as a result of a material breach by EES, they would be required to pay us a royalty on all products developed and sold by EES using our ILM intellectual property. In addition, we are entitled to a royalty on any ILM product commercialized by EES that does not infringe any of our existing intellectual property.

c. RESEARCH AND DEVELOPMENT AGREEMENTS: Cardiosonix' research and development efforts have been partially financed through grants from the Office of the Chief Scientist of the Israeli Ministry of Industry and Trade (the OCS). In return for the OCS's participation, Cardiosonix is committed to pay royalties to the Israeli Government at a rate of 3% to 5% of the sales if its products, up to 100% of the amount of the grants received (for grants received under programs approved subsequent to January 1, 1999 - 100% plus interest at LIBOR). Cardiosonix is entitled to the grants only upon incurring research and development expenditures. Cardiosonix is not obligated to repay any amount received from the OCS if the research effort is unsuccessful or if no products are sold. There are no future performance obligations related to the grants received from the OCS. However, under certain limited circumstances, the OCS may withdraw its approval of a research program or amend the terms of its approval. Upon withdrawal of approval, the grant recipient may be required to refund the grant, in whole or in part, with or without interest, as the OCS determines. Cardiosonix' total potential obligation for royalties, based on royalty-bearing government participation, was approximately $775,000 as of December 31, 2003.

During January 2002, we completed a license agreement with the University of California, San Diego (UCSD) for a proprietary compound that we believe could be used as a lymph node locating agent in ILM procedures. The license agreement is effective until the later of the expiration date of the longest-lived underlying patent or January 30, 2023. Under the terms of the license agreement, UCSD has granted us the exclusive rights to make, use, sell, offer for sale and import licensed products as defined in the agreement and to practice the defined

licensed methods during the term of the agreement. We may also sublicense the patent rights, subject to the approval of certain sublicense terms by UCSD. In consideration for the license rights, we agreed to pay UCSD a license issue fee of $25,000 and license maintenance fees of $25,000 per year. We also agreed to pay UCSD milestone payments related to successful regulatory clearance for marketing of the licensed products, a royalty on net sales of licensed products subject to a $25,000 minimum annual royalty, fifty percent of all sublicense fees and fifty percent of sublicense royalties. We also agreed to reimburse UCSD for all patent-related costs. Total costs related to the UCSD license agreement were $29,000 and $54,000 in 2003 and 2002, respectively, and were recorded in research and development expenses.

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

d. EMPLOYMENT AGREEMENTS: We maintain employment agreements with five of our officers. The employment agreements contain change in control provisions that would entitle each of the officers to two times their current annual salaries, vest outstanding restricted stock and options to purchase common stock, and continue certain benefits if there is a change in control of our company (as defined) and their employment terminates. Our maximum contingent liability under these agreements in such an event is approximately $1.7 million. The employment agreements also provide for severance, disability and death benefits. See Note 16(a).

Cardiosonix also maintains employment agreements with three key employees. The employment agreements contain provisions that would entitle the employees to the greater of one year's salary or the amount due under Israeli law if the employee were terminated without cause. The agreements also provide for royalty payments to the employees (See Note 10(b).). The maximum contingent liability under the agreements, excluding the potential royalty, is approximately $69,000.

12. LEASES:

We lease certain office equipment under capital leases which expire from 2004 to 2008. In December 1996, we entered into an operating lease agreement for office space, which expired in August 2003. In August 2003, we entered into an operating lease agreement for office space, which expires in September 2006. In April 2002, Cardiosonix entered into an operating sublease agreement for office and parking space, expiring in April 2004. In addition, Cardiosonix leases four automobiles under three-year operating leases.

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

	CAPITAL LEASES	OPERATING LEASES
2004	$ 13,436	$ 121,732

2005	7,964	86,738
2006	7,964	58,568
2007	7,964	-
2008	7,300	-
	44,627	$ 267,039
Less amount representing interest	10,959	
Present value of net minimum lease payments	33,740	
Less current portion	9,731	
Capital lease obligations, excluding current portion	$ 24,009	

Total rental expense, net of sublease rental income of $82,000 and $132,000, was $238,000 and $213,000 for the years ended December 31, 2003 and 2002, respectively.

13. EMPLOYEE BENEFIT PLAN:

We maintain an employee benefit plan under Section 401(k) of the Internal Revenue Code. The plan allows employees to make contributions and we may, but are not obligated to, match a portion of the employee's contribution with our common stock, up to a defined maximum. We accrued expenses of $14,000 and $26,000 during 2003 and 2002, respectively, related to common stock to be subsequently contributed to the plan.

14. SUPPLEMENTAL DISCLOSURE FOR STATEMENTS OF CASH FLOWS:

We paid interest aggregating $94,000 and $32,000 for the years ended December 31, 2003 and 2002, respectively. During 2002, we received a net refund of $700 related to overpayment of estimated 2001 income taxes.

During 2003, we purchased equipment under a capital lease totaling $29,000. During 2003 and 2002, we transferred $14,000 and $25,000, respectively, in inventory to fixed assets related to the creation of a pool of service loaner equipment. Also during 2003 and 2002, we prepaid $225,000 and $205,000, respectively, in insurance through the issuance of notes payable with weighted average interest rates of 6%. The notes issued in 2003 mature in July and August 2004.

15. CONTINGENCIES:

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

16. SUBSEQUENT EVENTS:

a. EMPLOYMENT AGREEMENTS: Effective January 1, 2004, we entered into new employment agreements with our President and CEO and three other executive officers. The new agreements have substantially similar terms to the previous agreements. The maximum contingent liability under these agreements in the event of termination is $1.5 million. See Note

11(d).

b. NOTES PAYABLE: On March 8, 2004, the due date of the note to our President and CEO, David Bupp, was extended from June 30, 2004 to June 30, 2005 with the same terms. In exchange for extending the due date of the note, we issued Mr. Bupp an additional 375,000 warrants, expiring in March 2009, to purchase our common stock at an exercise price of $0.50 per share. The per share value of these warrants was $0.46 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.7%, volatility of 152% and no expected dividend rate. See Note 6.

During January 2004, the outside investor converted the entire balance of the note into 1.1 million shares of common stock according to the conversion terms of the agreement. The total value of shares issued in conversion of the note was $378,955 based on the closing market prices for our common stock on the dates of conversion. See Note 6.

c. AGREEMENTS: In February 2004, we entered into a product supply agreement with TriVirix International (TriVirix) for the manufacture of the neo2000 control unit, 14mm probe, 11mm laparoscopic probe, Quantix/ORTM control unit and Quantix/NDTM control unit. The initial term of the agreement expires in January 2007, but may be automatically extended for successive one-year periods. Either party has the right to terminate the agreement at any time upon one hundred eighty (180) days prior written notice, or may terminate the agreement upon a material breach or repeated non-material breaches by the other. We have issued purchase orders for $1.8 million of neo2000 control units, 14mm probes and Quantix control units for delivery of product through December 2004.

d. DISTRIBUTION AGREEMENT: In March 2004, we were notified by EES that they were exercising their option to renew their distribution agreement with us covering our gamma detection devices through the end of 2006. See Note 11(b).

e. COMMON STOCK PURCHASE AGREEMENT: From January 1 through March 29, 2004, we sold Fusion a total of 2,100,000 million shares of common stock and realized proceeds of $1,271,334. We issued Fusion 57,140 shares of common stock during the first quarter of 2004 for commitment fees due to Fusion related to the sale of our common stock to them. See Note 8(e).

f. WARRANT EXERCISES: During the first quarter of 2004, certain investors exercised a total of 1.6 million warrants to purchase our common stock and we realized proceeds of $457,000. See Note 8(c).

17. SUPPLEMENTAL INFORMATION (UNAUDITED):

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

(Amounts in thousands, except per share data)	YEARS ENDED DECEMBER 31,

	2003	2002	2001	2
Statement of Operations Data:				
Net sales	$ 5,564	$ 3,383	$ 6,764	$
License and other revenue	946	1,538	1,428	
Gross profit	3,385	2,570	3,802	
Research and development expenses	1,894	2,324	948	
Selling, general and administrative expenses	3,103	3,267	2,321	
Acquired in-process research and development	-	(28)	885	
Losses related to subsidiaries in liquidation	-	-	-	
(Loss) income from operations	(1,611)	(2,993)	(352)	
Other (expenses) income	(188)	29	370	
Net (loss) income	$ (1,799)	$ (2,964)	$ 15	$
(Loss) income attributable to common stockholders	$ (1,799)	$ (2,964)	$ 15	$
(Loss) Income per common share:				
Basic	$ (0.04)	$ (0.08)	$ 0.00	$
Diluted	$ (0.04)	$ (0.08)	$ 0.00	$
Shares used in computing (loss) income per common share: (1)				
Basic	40,338	36,045	25,899	
Diluted	40,338	36,045	26,047	

	AS OF DECEMBER 31,			
	2003	2002	2001	2
Balance Sheet Data:				
Total assets	$ 7,385	$ 7,080	$ 11,329	$
Long-term obligations	585	1,169	1,981	
Accumulated deficit	(122,477)	(120,678)	(117,714)	(1

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

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS

ASSETS	SEPTEMBER 30, 2004 (UNAUDITED)

Current assets:	
Cash and cash equivalents	$ 3,008,201
Accounts receivable, net	746,424
Inventory	946,664
Prepaid expenses and other	146,898
Total current assets	4,848,187
Property and equipment	2,317,282
Less accumulated depreciation and amortization	1,971,192
	346,090
Patents and trademarks	3,173,608
Non-compete agreements	584,516
Acquired technology	237,271
	3,995,395
Less accumulated amortization	1,366,000
	2,629,395
Other assets	137,515
Total assets	$ 7,961,187

NEOPROBE CORPORATION AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS, CONTINUED

LIABILITIES AND STOCKHOLDERS' EQUITY	SEPTEMBER 30, 2004 (UNAUDITED)
Current liabilities:	
Note payable to CEO, net of discount of $135,360	$ 148,480
Notes payable to finance companies	-
Capital lease obligations, current	13,499
Accrued liabilities	302,331
Accounts payable	230,679
Deferred revenue, current	382,537
Total current liabilities	897,095

Note payable to CEO, net of discount of $12,702	-
Note payable to investor, net of discount of $32,496	-
Capital lease obligations	33,903
Deferred revenue	47,184
Other liabilities	51,452
Total liabilities	1,029,634
Commitments and contingencies	
Stockholders' equity:	
Preferred stock; $.001 par value; 5,000,000 shares authorized at June 30, 2004 and December 31, 2003; none issued and outstanding (500,000 shares designated as Series A, $.001 par value, at June 30, 2004 and and December 31, 2003; none outstanding)	-
Common stock; $.001 par value; 75,000,000 shares authorized; 58,087,057 shares issued and outstanding at June 30, 2004; 51,520,723 shares issued and outstanding at December 31, 2003	58,287
Additional paid-in capital	130,607,605
Accumulated deficit	(123,734,339)
Total stockholders' equity	6,931,553
Total liabilities and stockholders' equity	$ 7,961,187

See accompanying notes to the consolidated financial statements

NEOPROBE CORPORATION AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS

(UNAUDITED)

	THREE MONTHS ENDED SEPTEMBER 30,		
	2004	2003	20
Revenues:			
Net sales	$ 1,525,134	$ 927,949	$ 4
License and other revenue	200,000	257,588	
Total revenues	1,725,134	1,185,537	4
Cost of goods sold	643,303	497,458	1

Gross profit	1,081,831	688,079	3
Operating expenses:			
Research and development	588,435	508,693	1
Selling, general and administrative	695,399	755,104	2
Total operating expenses	1,283,834	1,263,797	4
Loss from operations	(202,003)	(575,718)	(1,
Other income (expenses):			
Interest income	8,367	19,695	
Interest expense	(42,494)	(99,520)	(
Other	(2,628)	(3,571)	
Total other expenses	(36,755)	(83,396)	(
Net loss	$ (238,758)	$ (659,114)	$ (1,
Net loss per common share:			
Basic	$ (0.00)	$ (0.02)	$
Diluted	$ (0.00)	$ (0.02)	$
Weighted average shares outstanding:			
Basic	58,076,622	38,555,261	56
Diluted	58,076,622	38,555,261	56

See accompanying notes to the consolidated financial statements.

NEOPROBE CORPORATION AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS

(UNAUDITED)

	NINE MON SEPTEM
	2004
Cash flows from operating activities:	
Net loss	$ (1,257,208)
Adjustments to reconcile net loss to net cash used in operating activities:	
Depreciation and amortization	444,021
Amortization of debt discount and offering costs	130,539
Other	130,831
Change in operating assets and liabilities:	
Accounts receivable	361,376

Inventory	51,497
Prepaid expenses and other assets	125,857
Accrued and other liabilities	89,120
Accounts payable	5,647
Deferred revenue	(706,297)
Net cash used in operating activities	(624,617)
Cash flows from investing activities:	
Purchases of property and equipment	(67,310)
Proceeds from sales of property and equipment	375
Patent and trademark costs	(17,506)
Net cash used in investing activities	(84,441)
Cash flows from financing activities:	
Proceeds from issuance of common stock	2,349,073
Payment of offering costs	(15,642)
Proceeds from notes payable, net of offering costs	-
Payment of notes payable	(192,272)
Proceeds from secured financing	-
Payments under capital leases	(12,660)
Net cash provided by financing activities	2,128,499
Net increase (decrease) in cash and cash equivalents	1,419,441
Cash and cash equivalents, beginning of period	1,588,760
Cash and cash equivalents, end of period	$ 3,008,201

See accompanying notes to the consolidated financial statements.

1. BASIS OF PRESENTATION

The information as of September 30, 2004 and 2003 and for the periods then ended is unaudited, but includes all adjustments (which consist only of normal recurring adjustments) that the management of Neoprobe Corporation (Neoprobe or we) believes to be necessary for the fair presentation of results for the periods presented. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to the rules and regulations of the U.S. Securities and Exchange Commission. The results for the interim period are not necessarily indicative of results to be expected for the year. The financial statements should be read in conjunction with Neoprobe's audited financial statements for the year ended December 31,

2003, which were included as part of our Annual Report on Form 10-KSB.

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

2. COMPREHENSIVE INCOME (LOSS)

We had no accumulated other comprehensive income (loss) activity during the three-month and nine-month periods ended September 30, 2004 and 2003.

3. EARNINGS PER SHARE

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

	THREE MONTHS ENDED SEPTEMBER 30, 2004		THREE MONT SEPTEMBER
	BASIC EARNINGS PER SHARE	DILUTED EARNINGS PER SHARE	BASIC EARNINGS PER SHARE
Outstanding shares	58,287,057	58,287,057	39,148,426
Effect of weighting changes in outstanding shares	(80,435)	(80,435)	(463,165)
Contingently issuable shares	(130,000)	(130,000)	(130,000)
Adjusted shares	58,076,622	58,076,622	38,555,261

	NINE MONTHS ENDED SEPTEMBER 30, 2004		NINE MONTH SEPTEMBER
	BASIC EARNINGS PER SHARE	DILUTED EARNINGS PER SHARE	BASIC EARNINGS PER SHARE
Outstanding shares	58,287,057	58,287,057	39,148,426
Effect of weighting changes in outstanding shares	(1,866,172)	(1,866,172)	(563,980)
Contingently issuable shares	(130,000)	(130,000)	(130,000)
Adjusted shares	56,290,885	56,290,885	38,454,446

There is no difference in basic and diluted loss per share related to the three-month and nine-month periods ended September 30, 2004 and 2003. The

net loss per common share for these periods excludes the number of common shares issuable upon exercise of outstanding stock options and warrants into our common stock since such inclusion would be anti-dilutive.

4. INVENTORY

The components of inventory are as follows:

	SEPTEMBER 30, 2004 (UNAUDITED)	DECEMBER 31, 2003
Materials and component parts	$ 608,713	$ 747,78
Work in process	59,415	
Finished goods	278,536	260,53
	$ 946,664	$ 1,008,32

5. INTANGIBLE ASSETS

The major classes of intangible assets are as follows:

	SEPTEMBER 30, 2004 (UNAUDITED)		DECEMBER
	GROSS CARRYING AMOUNT	ACCUMULATED AMORTIZATION	GROSS CARRYING AMOUNT
Patents and trademarks	$ 3,173,608	$ 868,115	$ 3,156,101
Non-compete agreements	584,516	403,875	584,516
Acquired technology	237,271	94,010	237,271
Total	$ 3,995,395	$ 1,366,000	$ 3,977,888

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

	ESTIMATED AMORTIZATION EXPENSE
For the year ended 12/31/2004	$ 427,285
For the year ended 12/31/2005	427,285
For the year ended 12/31/2006	282,770
For the year ended 12/31/2007	214,545
For the year ended 12/31/2008	204,002

6. 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. Our primary marketing partner, Ethicon Endo-Surgery, Inc. (EES), a Johnson and Johnson company, also reimburses us for a portion of warranty expense incurred on our gamma detection devices based on end customer sales they make during a given fiscal year. Payments charged against the reserve are disclosed net of EES' reimbursement.

The activity in the warranty reserve account for the three-month and nine-month periods ended June 30, 2004 and 2003 is as follows:

	THREE MONTHS ENDED SEPTEMBER 30,		NINE M SEPT
	2004	2003	2004
Warranty reserve at beginning of period	$ 46,000	$ 58,000	$ 53,000
Provision for warranty claims and changes in reserve for warranties	(1,000)	(4,914)	(8,000)
Payments charged against the reserve	-	(86)	-
Warranty reserve at end of period	$ 45,000	$ 53,000	$ 45,000

7. NOTES PAYABLE

During April 2003, we completed a bridge loan agreement with our President and CEO, David Bupp. Under the terms of the agreement, Mr. Bupp advanced us $250,000. In consideration for the loan, we issued a note to Mr. Bupp in the principal amount of $250,000. The note is secured by general assets of the company, excluding accounts receivable. In addition, we issued Mr. Bupp 375,000 warrants to purchase common stock at an exercise price of $0.13 per share, expiring in April 2008. The per share value of these warrants was $0.10 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.9%, volatility of 139% and no expected dividend rate. Interest accrues on the note at 8.5% per annum, payable monthly, and the note was originally due on June 30, 2004. On March 8, 2004, at the request of the Board of Directors, Mr. Bupp agreed to extend the due date of the note from June 30, 2004 to June 30, 2005. In exchange for extending the due date of the note, we issued Mr. Bupp an additional 375,000 warrants to purchase our common stock at an exercise price of $0.50 per share, expiring in March 2009. The per share value of these warrants was $0.46 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.7%, volatility of 152% and no expected dividend rate. The total estimated fair values for the warrants issued to Mr. Bupp in April 2003 and March 2004 were $31,755 and $171,801, respectively. These amounts were recorded as discounts on the note and are being amortized over the period of the note. At September 30, 2004, the

unamortized discounts related to Mr. Bupp's note totaled $101,520.

During April 2003, we also completed a bridge loan agreement with an outside investor for an additional $250,000. In consideration for the loan, we issued a note to the investor in the principal amount of $250,000. The note was secured by general assets of the company, excluding accounts receivable. In addition, we issued the investor 500,000 warrants to purchase common stock at an exercise price of $0.13 per share. The per share value of these warrants was $0.10 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 2.9%, volatility of 139% and no expected dividend rate. The total estimated fair value for the warrants issued to the outside investor was $40,620. Under the terms of the agreement, the note bore interest at 9.5% per annum, payable monthly, was convertible into common stock and was due on June 30, 2004. Fifty percent of the principal and accrued interest of the note was convertible into common stock at a 15% discount to the closing market price on the date of conversion, subject to a floor conversion price of $0.10. The remaining 50% of the principal and accrued interest was convertible into common stock based on a 15% discount to the closing market price on the date of conversion, subject to a floor conversion price of $0.10 and a ceiling conversion price of $0.20. The intrinsic value of the conversion feature of the note to the outside

investor was estimated at $40,620 based on the effective conversion price at the date of issuance and was recorded as an additional discount on the note. The estimated fair value of the warrants and the intrinsic value of the conversion feature were recorded as discounts on the note and were amortized over the term of the note. During January 2004, the outside investor converted the entire balance of the note into 1.1 million shares of common stock according to the conversion terms of the agreement. The total value of the shares issued in conversion of the note was $378,955 based on the closing market prices for our common stock on the dates of conversion. The discount remaining at conversion totaling $27,604 was recorded as interest expense.

8. STOCK OPTIONS AND RESTRICTED STOCK

During the first nine months of 2004, the Board of Directors granted options to consultants, employees and certain non-employee directors to purchase 1.7 million shares of common stock, exercisable at an average price of $0.42 per share, vesting over three years. We recognized $129,000 of research and development expense related to options granted to consultants in the first nine months of 2004. As of September 30, 2004, we have 4.3 million options outstanding under three stock option plans. Of the outstanding options, 2.0 million options have vested as of September 30, 2004, at an average exercise price of $0.60 per share.

The following table illustrates the effect on net loss and net loss per share if compensation cost for our stock-based compensation plans had been determined based on the fair value at the grant dates for awards under those plans consistent with Statement of Financial Accounting Standards (SFAS) No. 123, Accounting for Stock-Based Compensation:

	THREE MONTHS END SEPTEMBER 30,
	2004

Net loss, as reported	$ (238,758)	$
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(78,228)	
Pro forma net loss	$ (316,986)	$
Loss per common share:		
As reported (basic and diluted)	$ (0.00)	$
Pro forma (basic and diluted)	$ (0.01)	$

	NINE MONTHS ENDE SEPTEMBER 30,	
	2004	
Net loss, as reported	$ (1,257,208)	$
Add: Total stock-based employee compensation expense included in reported net loss	-	
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(186,363)	
Pro forma net loss	$ (1,443,571)	$
Loss per common share:		
As reported (basic and diluted)	$ (0.02)	$
Pro forma (basic and diluted)	$ (0.03)	$

During the first quarter of 2003, we vested 310,000 shares of previously restricted stock related to new or amended employment agreements of three of our officers. We recognized $39,990 of compensation expense related to this in the first quarter of 2003.

9. STOCK WARRANTS

In November 2003, we completed a $2.8 million placement of common stock and warrants for net proceeds of $2.4 million. In the placement, 12.2 million shares of common stock were issued at $0.23 per share, and Series R warrants were issued to purchase an additional 6.1 million shares of common stock at $0.28 per share. In addition, we paid $291,000 in cash and issued 1.4 million Series S warrants to purchase common stock at $0.28 per share as fees to the placement agents. All warrants issued in connection with the placement expire in October 2008. The per share value of these warrants was $0.31 on the date of issuance using the Black-Scholes option pricing model with the following assumptions: an average risk-free interest rate of 3.2%, volatility of 151% and no expected dividend rate. A registration statement registering for resale the common stock and warrants issued in the private placement was declared effective on December 17, 2003. During the first nine months of 2004, 3,308,327 of these warrants were exercised and we realized net proceeds of $865,563.

During 2003, an investment banking firm, Alberdale Capital LLC (Alberdale), assisted us in arranging an accounts receivable financing transaction. In

exchange for Alberdale's services, we issued them warrants to purchase 78,261 shares of our common stock. During the first quarter of 2004, Alberdale exercised these warrants on a cashless basis in exchange for 53,500 shares of common stock.

At September 30, 2004 there are 5.6 million warrants outstanding to purchase our common stock. The warrants are exercisable at prices ranging from $0.13 to $0.75 per share with a weighted average exercise price per share of $0.28.

10. COMMON STOCK PURCHASE AGREEMENT

On November 19, 2001, we entered into a common stock purchase agreement with an investment fund, Fusion Capital Fund II, LLC (Fusion) for the issuance and purchase of our common stock. Under the stock purchase agreement, Fusion committed to purchase up to $10 million of our common stock over a forty-month period that commenced in May 2002. A registration statement registering for resale up to 5 million shares of our common stock became effective on April 15, 2002. Under the terms of the agreement, we can request daily drawdowns, subject to a daily base amount currently set at $12,500. The number of shares we are to issue to Fusion in return for that money will be based on the lower of (a) the closing sale price for our common stock on the day of the draw request or (b) the average of the three lowest closing sales prices for our common stock during a twelve day period prior to the draw request. However, no shares may be sold to Fusion at lower than a floor price currently set at $0.30, which may be reduced by us, but in no case below $0.20 without Fusion's prior consent. During the first nine months of 2004, we sold Fusion a total of 2,350,000 shares of common stock and realized net proceeds of $1,468,874. We also issued Fusion 66,129 shares of common stock for commitment fees related to the sales of our common stock to them during the first nine months of 2004.

11. SEGMENT AND SUBSIDIARY INFORMATION

We own or have rights to intellectual property related to gamma detection drugs. We also own or have rights to intellectual property involving two primary types of medical device products, including gamma detection instruments currently used primarily in the application of intraoperative lymphatic mapping (ILM), and blood flow measurement devices. Prior to 2004, gamma detection drugs and devices were reported as one segment. Certain 2003 amounts have been reclassified to conform to the 2004 presentation.

The information in the following table is derived directly from each segment's internal financial reporting used for corporate management purposes. Selling, general and administrative costs and other income, including amortization, interest and other costs that relate primarily to corporate activity, are not currently allocated to the operating segments for financial reporting purposes.

($ AMOUNTS IN THOUSANDS) THREE MONTHS ENDED SEPT. 30, 2004	GAMMA DETECTION DRUGS	GAMMA DETECTION DEVICES	BLOOD FLOW DEVICES	UNALLOC
Net sales:				
United States1	$ -	$ 1,474	$ -	$
International	-	24	27	

License and other revenue	-	200	-	
Research and development expenses	83	54	451	
Selling, general and administrative expenses	-	-	-	
Income (loss) from operations2	(83)	1,039	(463)	(
Other income (expenses)	-	-	-	
THREE MONTHS ENDED SEPT. 30, 2003				
Net sales:				
United States1	$ -	$ 900	$ -	$
International	-	4	24	
License and other revenue	-	258	-	
Research and development expenses	8	150	351	
Selling, general and administrative expenses	-	-	-	
Income (loss) from operations2	(8)	524	(337)	(
Other income (expenses)	-	-	-	

($ AMOUNTS IN THOUSANDS) NINE MONTHS ENDED SEPT. 30, 2004	GAMMA DETECTION DRUGS	GAMMA DETECTION DEVICES	BLOOD FLOW DEVICES	UNALLOC
Net sales:				
United States1	$ -	$ 3,970	$ -	$
International	-	64	65	
License and other revenue	-	600	-	
Research and development expenses	310	335	1,121	
Selling, general and administrative expenses	-	-	-	2
Income (loss) from operations2	(310)	2,713	(1,163)	(2,
Other income (expenses)	-	-		(
NINE MONTHS ENDED SEPT. 30, 2003				
Net sales:				
United States1	$ -	$ 3,636	$ -	$
International	-	8	225	
License and other revenue	-	746	-	
Research and development expenses	19	327	1,019	
Selling, general and administrative expenses	-	-	-	2
Income (loss) from operations2	(19)	1,996	(840)	(2,
Other income (expenses)	-	-	-	(

(1) All sales to EES are made in the United States. EES distributes the product globally through its international affiliates.

(2) Income (loss) from operations does not reflect the allocation of selling, general and administrative costs to the operating segments.

12. SUPPLEMENTAL DISCLOSURE FOR STATEMENTS OF CASH FLOW

During the first nine months of 2004, we purchased equipment under capital leases totaling $27,000. During the first nine months of 2004 and 2003, we transferred $10,000 and $14,000, respectively, in inventory to fixed assets related to the maintenance of a pool of service loaner equipment.