

NEOPROBE CORP  
Form S-3  
April 27, 2011

As filed with the Securities and Exchange Commission on April 27, 2011  
Registration No. 333-

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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Form S-3  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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NEOPROBE CORPORATION  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction  
of incorporation or organization)

31-1080091  
(I.R.S. Employer  
Identification Number)

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425 Metro Place North  
Dublin, Ohio 43017-1367  
(614) 793-7500  
(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)

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Brent L. Larson  
Senior Vice President and Chief Financial Officer  
Neoprobe Corporation  
425 Metro Place North  
Dublin, Ohio 43017-1367  
(614) 822-2330  
(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

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Copies of Correspondence to:

William J. Kelly, Jr., Esq.  
Brett P. Thornton, Esq.

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Porter, Wright, Morris & Arthur LLP  
41 South High Street, Suite 2800  
Columbus, Ohio 43215-6194  
(614) 227-2000  
(614) 227-2100 (fax)  
wjkelly@porterwright.com

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Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective as permitted by market conditions.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>	Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
(Do not check if a smaller reporting company)							

## Calculation of Registration Fee

Title of each class of securities to be registered(1)	Amount to be registered(1)(2)(3)	Proposed maximum offering price per share	Proposed maximum aggregate offering price(1)(2)(3)	Amount of registration fee
<b>Primary Offering:</b>				
Common Stock, \$0.001 par value				
Preferred Stock, \$0.001 par value				
Warrants				
Subscription Rights				
Purchase Contracts				
Units			\$ 100,000,000 (4)	\$ 11,610.00
<b>Secondary Offering:</b>				
Common Stock, \$0.001 par value	12,500,000	\$ 4.77 (5)	\$ 59,625,000 (5)	\$ 6,922.50
<b>Total</b>				<b>\$ 18,532.50</b>

- (1) Not specified as to each class of securities to be registered in connection with the primary offering pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended (the "Securities Act"). Securities registered in connection with the primary offering hereby may be sold separately, together or in units with other securities registered hereby.
- (2) This registration statement covers such an indeterminate amount of the securities of each identified class registered hereunder as may from time to time be offered and issued hereunder at indeterminate prices, along with an indeterminate number of securities that may be issued upon exercise, settlement, exchange or conversion of securities offered or sold hereunder. Separate consideration may or may not be received for securities that are issuable upon conversion, exercise, or exchange of other securities. This registration statement also covers, pursuant to Rule 416 under the Securities Act, such an indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends, or similar transactions.
- (3) The proposed maximum offering price per class of security will be determined from time to time by the registrant in connection with, and at the time of, the issuance by the registrant of the securities registered hereunder in connection with the primary offering.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o). The maximum aggregate offering price of the securities to be registered in connection with the primary offering will not exceed \$100,000,000.
- (5) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) of the Securities Act of 1933. The price per share and aggregate offering price are based upon the average high and low prices of the registrant's common stock on April 26, 2011, as reported on the NYSE Amex. It is not known how many shares will be purchased under this Registration Statement or at what price such shares will be purchased.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the Registration Statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated April 27, 2011

PROSPECTUS  
NEOPROBE CORPORATION

\$100,000,000

Common Stock  
Preferred Stock  
Warrants  
Subscription Rights  
Purchase Contracts  
Units

12,500,000 Shares of Common Stock  
Offered by Selling Stockholders

- 
- We may offer and sell, from time to time in one or more offerings, any security or combination of securities described in this prospectus having an aggregate initial offering price not exceeding \$100,000,000 on terms to be determined at the time of the offering.
  - In addition, this prospectus covers resales of 12,500,000 shares of our common stock owned by Platinum-Montaur Life Sciences, LLC and its transferees, in the circumstances we describe (the “selling stockholders”). We will not receive any proceeds from the sale, if any, of common stock by the selling stockholders.
  - This prospectus provides a general description of the securities we or the selling stockholders may offer. Each time we or the selling stockholders sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.
  - We or the selling stockholders will sell these securities directly to purchasers, or through agents on our behalf, or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.
  - The last reported sale price of our common stock on April 26, 2011 was \$4.77 per share.
  - Our common stock is currently listed on the NYSE Amex under the symbol “NEOP.”

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Investing in our securities involves a high degree of risk. Before investing in our securities, we recommend that you carefully read this entire prospectus, including the “Risk Factors” section beginning on page 3, any applicable supplements to this prospectus and the documents we file with the Securities and Exchange Commission from time to

time.

Neither the Securities and Exchange Commission nor any state securities commission has approved of anyone's investment in these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Neoprobe Corporation  
425 Metro Place North, Suite 300  
Dublin, OH 43017-1367  
(614) 793-7500

The date of this prospectus is April \_\_, 2011

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## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the Commission, utilizing a “shelf” registration process. Under this shelf registration process, we may offer to sell the securities described in this prospectus, alone or in combination, in one or more offerings up to a total dollar amount of \$100,000,000. This prospectus also relates to the offer and sale from time to time of up to 12,500,000 shares of our common stock in one or more offerings by the selling stockholders identified in this prospectus. This prospectus provides you with a general description of the securities we or the selling stockholders may offer. We may add to or modify in a prospectus supplement any of the information contained in this prospectus or in the documents that we have incorporated into this prospectus by reference. To the extent that any statement made in a prospectus supplement conflicts with statements made in this prospectus, the statements made in the prospectus supplement will be deemed to modify or supersede those made in this prospectus. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under “Where You Can Find More Information and Incorporation by Reference.”

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor does this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

In this prospectus, “we,” “us,” “our” and “Neoprobe” refer to Neoprobe Corporation and its subsidiaries.

## ABOUT NEOPROBE CORPORATION

Neoprobe Corporation is a biomedical technology company that provides innovative surgical and diagnostic oncology products that enhance patient care and improve patient outcome. We currently market a line of medical devices, our neoprobe® GDS gamma detection systems, that are used in a cancer staging procedure called intraoperative lymphatic mapping. We have two radiopharmaceutical product candidates, Lymphoseek® and RIGScan™ CR, in advanced phases of clinical development. We are also exploring the development of our activated cellular therapy (ACT) technology for patient-specific disease treatment through our majority-owned subsidiary, Cira Biosciences, Inc. (Cira Bio).

We believe that shareholder value can be greatly enhanced through our development of our radiopharmaceutical product candidates. We also plan to evaluate opportunities to expand our product pipeline by acquiring at attractive valuations or engaging in license arrangements involving other drug development programs with substantial potential. Initially, we intend to focus on identifying later stage product opportunities within the radiopharmaceutical sector; however, we may evaluate opportunities in other sectors during our pipeline expansion evaluation process. As we evaluate growth opportunities in our drug development segment, we may also evaluate strategic options related to our gamma detection system business.

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. Our corporate website is [www.neoprobe.com](http://www.neoprobe.com). This reference to our website is a textual reference only. We do not incorporate the information on our website into this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

## RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below, together with all of the other information included in this prospectus, before making an investment decision. If any of the following risks actually occurs, our business, financial condition or results of operations could suffer. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

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 \$251 million as of December 31, 2010. Although we were profitable in 2000 and 2001, we incurred substantial losses in the years prior to that, and again in subsequent years. The accumulated deficit resulted because we expended more money in the course of researching, developing and enhancing our technology and products and establishing our marketing and administrative organizations than we generated in revenues. We expect to continue to incur significant expenses in the foreseeable future, primarily related to the completion of development and commercialization of Lymphoseek, but also potentially related to RIGS and our device product lines. As a result, we are sustaining substantial operating and net losses, and it is possible that we will never be able to sustain or develop the revenue levels necessary to again attain profitability.

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

Widespread use of our handheld gamma detection devices is currently limited to one surgical procedure, sentinel lymph node biopsy (SLNB), used in the diagnosis and treatment of two primary types of cancer: melanoma and breast cancer. While the adoption of SLNB within the breast and melanoma indications appears to be widespread, we believe expansion of SLNB to other indications such as head and neck, colorectal and prostate cancers is likely dependent on a better lymphatic tissue targeting agent than is currently available. Without expanded indications in which to apply SLNB, it is likely that gamma detection devices will eventually reach market saturation. Our efforts and those of our marketing and distribution partners may not result in significant demand for our products, and the current demand for our products may decline.

Our radiopharmaceutical product candidates, Lymphoseek and RIGScan, are still in the process of development, and even if we are successful in commercializing them, we cannot assure you that they will obtain significant market acceptance. Likewise, any product candidates that we may acquire or develop in the future will be subject to similar risks.

We may have difficulty raising additional capital, which could deprive us of necessary resources to pursue our business plans.

We expect to devote significant capital resources to fund research and development, to maintain existing and secure new manufacturing capacity, and to acquire new product candidates. In order to support the initiatives envisioned in our business plan, we may need to raise additional funds through the sale of assets, public or private debt or equity financing, collaborative relationships or other arrangements. Our ability to raise additional financing depends on many factors beyond our control, including the state of capital markets, the market price of our common stock and the development or prospects for development of competitive technology by others. 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.

Our future expenditures on our programs are subject to many uncertainties, including whether our product candidates will be developed or commercialized with a partner or independently. Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- the costs of seeking regulatory approval for our product candidates, including any nonclinical testing or bioequivalence or clinical studies, process development, scale-up and other manufacturing and stability activities, or other work required to achieve such approval, as well as the timing of such activities and approval;

the extent to which we invest in or acquire new technologies, product candidates, products or businesses and the development requirements with respect to any acquired programs;

the scope, prioritization and number of development and/or commercialization programs we pursue and the rate of progress and costs with respect to such programs;

the costs related to developing, acquiring and/or contracting for sales, marketing and distribution capabilities and regulatory compliance capabilities, if we commercialize any of our product candidates for which we obtain regulatory approval without a partner;

- the timing and terms of any collaborative, licensing and other strategic arrangements that we may establish;

the extent to which we will need to expand our workforce to pursue our business plan, and the costs involved in recruiting, training and incentivizing new employees;

- the effect of competing technological and market developments; and

- the cost involved in establishing, enforcing or defending patent claims and other intellectual property rights.

We believe that we have access to sufficient financial resources with which to fund our operations or those of our subsidiaries for the foreseeable future. However, we may determine to grow our organization and/or pursue development and/or commercialization activities for our current or future product candidates, at levels or on timelines, or we may incur unexpected expenses, that shorten the period through which our current operating funds will sustain us. We may also acquire new technologies, product candidates and/or products and the cost to acquire, develop and/or commercialize such new technologies, product candidates and/or products may shorten the period through which our current operating funds will sustain us. However, we may not be able to obtain sufficient additional funding on satisfactory terms, if at all. If we are unsuccessful in raising additional capital, or the terms of raising such capital are unacceptable, we may have to modify our business plan and/or significantly curtail our planned development activities, acquisition of new product candidates and other operations.

Our ability to raise capital may be limited by applicable laws and regulations.

Our ability to raise additional capital through the sale and issuance of our equity securities may be limited by, among other things, current Commission, and NYSE Amex rules and regulations. Our capital raising plans include primary offerings of equity securities using a “shelf” registration on Form S-3, which typically enables an issuer to raise additional capital on a more timely and cost effective basis than through other means, such as registration of a securities offering under a Form S-1 registration statement. Under current Commission rules and regulations, to be eligible to use a Form S-3 registration statement for primary offerings without restriction as to the amount of securities to be sold and issued, an issuer must, among other requirements, have outstanding common equity with a market value of at least \$75 million held by non-affiliates. Although we currently have outstanding common equity with a market value of at least \$75 million held by non-affiliates, if we file a “shelf” Form S-3 registration statement at a time when the aggregate market value of our common stock held by non-affiliates, or public float, is less than \$75 million (calculated as set forth in Form S-3 and Commission rules and regulations), the amount we could raise through primary offerings of our securities in any 12-month period using the Form S-3 registration statement may be limited to an aggregate of one-third of our public float. Moreover, the market value of all securities sold by us under a Form S-3 registration statement during the prior 12 months may be subtracted from that amount to determine the amount we can then raise under the Form S-3 registration statement. Even if we file a “shelf” Form S-3 registration statement at a time when our public float is \$75 million or more (calculated as set forth in Form S-3 and Commission rules and regulations), we may become subject to the one-third of public float limitation described above in the future. The Commission’s rules

and regulations require that we periodically re-evaluate the value of our public float. If, at a re-evaluation date, our public float is less than \$75 million (calculated as set forth in Form S-3 and Commission rules and regulations), the amount we could raise through primary offerings of our securities in any 12-month period using a Form S-3 registration statement would be subject to the one-third of public float limitation described above.

In addition, under current Commission rules and regulations, if our public float is less than \$75 million or if we seek to register a resale offering (i.e., an offering of securities of ours by persons other than us), we must, among other requirements, maintain our listing with the NYSE Amex or have our common stock listed and registered on another national securities exchange in order to be eligible to use a Form S-3 registration statement for any primary or resale offering. Alternative means of raising capital through sales of our securities, including through the use of a Form S-1 registration statement, may be more costly and time-consuming.

Currently, our common stock is listed on the NYSE Amex equities market. The NYSE Amex will review the appropriateness of continued listing of any issuer that falls below the exchange's continued listing standards. For additional information regarding this risk, see the risk factor below titled "Our failure to maintain continued compliance with the listing requirements of the NYSE Amex Equities exchange could result in the delisting of our common stock." If our common stock were delisted from the NYSE Amex, our ability to raise capital on terms and conditions we deem acceptable, if at all, may be materially impaired.

Our ability to timely raise sufficient additional capital also may be limited by the NYSE Amex's requirements relating to stockholder approval for transactions involving the issuance of our common stock or securities convertible into our common stock. For instance, the NYSE Amex requires that we obtain stockholder approval of any transaction involving the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value, which (together with sales by our officers, directors and principal stockholders) equals 20% or more of our presently outstanding common stock, unless the transaction is considered a "public offering" by the NYSE Amex staff. Based on our outstanding common stock as of April 26, 2011 and a closing price of \$4.77, which was the closing price of our common stock on April 26, 2011, we could not raise more than approximately \$85,270,955 without stockholder approval, unless the transaction is deemed a public offering or does not involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value. However, certain prior sales by us may be aggregated with any offering we may propose in the near-term, further limiting the amount we could raise in any future offering that is not considered a public offering by the NYSE Amex staff and would involve the sale, issuance or potential issuance by us of our common stock (or securities convertible into our common stock) at a price less than the greater of book or market value. The NYSE Amex will also require stockholder approval if the issuance or potential issuance of additional shares will be considered by the exchange staff to result in a change of control of Neoprobe.

Obtaining stockholder approval is a costly and time-consuming process. If we are required to obtain stockholder approval, we would expect to spend substantial additional money and resources. In addition, seeking stockholder approval would delay our receipt of otherwise available capital, which may materially and adversely affect our ability to execute our current business strategy, and there is no guarantee our stockholders ultimately would approve a proposed transaction. A public offering under the NYSE Amex rules typically involves broadly announcing the proposed transaction, which often times has the effect of depressing the issuer's stock price. Accordingly, the price at which we could sell our securities in a public offering may be less and the dilution existing stockholders experience may in turn be greater than if we were able to raise capital through other means.

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

Before obtaining regulatory approval for the commercial sale of any product candidates, we must demonstrate through preclinical testing and clinical trials that our product candidates are safe and effective for use in humans. Conducting clinical trials is a time consuming, expensive and uncertain process and may take years to complete. During 2009, we successfully completed a Phase 3 clinical trial in subjects with breast cancer or melanoma for our most advanced radiopharmaceutical product candidate, Lymphoseek. We have completed enrollment in a second Phase 3 trial for

this product also in subjects with breast cancer or melanoma and are in the process of analyzing the results of the trial. In addition, we are enrolling subjects in a third Phase 3 clinical trial in subjects with head and neck squamous cell carcinoma. We also continue to have dialogue with FDA and EMA regarding our other radiopharmaceutical product candidate, RIGScan. In February 2010, we met with FDA to discuss filing a new Investigational New Drug (IND) application in the US for RIGScan to begin to reinitiate development of this product candidate, and are now preparing for manufacturing activities. We also intend to approach EMA during 2011 in our efforts to develop, to the extent possible, a harmonized clinical and regulatory developmental pathway for RIGScan in the US and EU.

Historically, the results from preclinical testing and early clinical trials have often not been generally predictive of results obtained in later clinical trials. Frequently, drugs that have shown promising results in preclinical or early clinical trials subsequently fail to establish sufficient safety and efficacy data necessary to obtain regulatory approval. At any time during the clinical trials, we, the participating institutions, FDA or EMA 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.

While we have achieved some level of success in our recent Phase 2 and Phase 3 clinical trials for Lymphoseek, the results of these clinical trials, as well as pending and future trials for these and other product candidates that we may develop or acquire, are subject to review and interpretation by various regulatory bodies during the regulatory review process and may ultimately fail to demonstrate the safety or effectiveness of our product candidates to the extent necessary to obtain regulatory approval or such that commercialization of our product candidates is worthwhile. Any failure or substantial delay in successfully completing clinical trials and obtaining regulatory approval for our product candidates could severely harm our business.

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

Our strategy for the development and commercialization of current and future 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
  - commercialize existing and future product candidates.

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

We rely on third parties for the worldwide marketing and distribution of our gamma detection 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 products. If this happens, we may not be able to successfully market our products, which would decrease our revenues.

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

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

- delay marketing of potential products for a considerable period of time;
- limit the indicated uses for which potential products may be marketed;
  - impose costly requirements on our activities; and/or
- provide competitive advantage to other pharmaceutical and biotechnology companies.

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

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

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

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

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

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

FDA regulates our gamma detection products in the United States. Foreign countries also subject these products to varying government regulations. In addition, these regulatory authorities may impose limitations on the use of our products. FDA enforcement policy strictly prohibits the marketing of FDA cleared medical devices for unapproved uses. Within the European Union, our products are required to display the CE Mark in order to be sold. We have obtained FDA clearance to market and European certification to display the CE Mark on our current line of gamma detection systems. We may not be able to obtain clearance to market any new products in a timely manner, or at all. Failure to comply with these and other current and emerging regulatory requirements in the global markets in which our products are sold could result in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to grant pre-market clearance for devices, withdrawal of clearances, and criminal prosecution.

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

We do not manufacture our current neoprobe GDS line of gamma detection systems, and rely solely on independent contract manufacturers to produce these systems and their components. Our business will suffer if our contract manufacturers have production delays or quality problems. Furthermore, medical device manufacturers are subject to the quality system 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 Devicor Medical Products, Inc. for gamma detection devices contains failure to supply provisions, which, if triggered, could have a significant negative impact on our business.

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

We do not currently have any manufacturing capability for the radiopharmaceutical compounds necessary for clinical testing or commercial sale. We intend to rely 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. We have a supply agreement with Reliable Biopharmaceuticals to manufacture the active pharmaceutical ingredient for our Lymphoseek product and are in the process of finalizing a supply contract with a third-party manufacturer for the finishing and vialing of our Lymphoseek product. However, 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 and any third-party manufacturers that we may use must continually adhere to current Good Manufacturing Practices regulations enforced by FDA through its facilities inspection program. If our facilities or the facilities of third-party manufacturers cannot pass a pre-approval plant inspection, FDA will not grant approval to our product candidates. In complying with these regulations and foreign regulatory requirements, we and any of our third-party manufacturers will be obligated to expend time, money and effort on production, record-keeping and quality control to assure that our potential products meet applicable specifications and other requirements. If we or any third-party manufacturer with whom we may contract fail to maintain regulatory compliance, we or the third party may be subject to fines and/or manufacturing operations may be suspended.

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

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

The healthcare industry is undergoing fundamental changes resulting from political, economic and regulatory influences. In the United States, comprehensive programs have been proposed that seek to increase access to healthcare for the uninsured, to control the escalation of healthcare expenditures within the economy and to use healthcare reimbursement policies to balance the federal budget. On March 23, 2010, the Patient Protection and Affordable Care Act was passed by Congress and has been signed into law. This legislation provides that most individuals must have health insurance, will establish new regulations on health plans, create insurance pooling mechanisms and other expanded public health care measures, and impose new taxes on sales of medical devices and pharmaceuticals. Since this legislation is recently enacted and implementing regulations have only begun to be developed, and since significant portions of the legislation may be amended or repealed, we cannot predict the effect, if any, that it will have on our business, but this legislation and similar federal and state initiatives may have the effect of lowering reimbursements for our products, reducing medical procedure volumes, increasing our taxes and otherwise adversely affect our business, possibly materially.

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

The sale of the shares of common stock acquired by private investors could cause the price of our common stock to decline.

Over the past few years, we completed various financings in which we issued common stock, convertible notes, warrants and other securities convertible into common stock to certain private investors, as more fully described below. The terms of these transactions require that we file registration statements with the Securities and Exchange Commission under which the investors may resell to the public common stock acquired in these transactions, as well as common stock acquired on the exercise of the warrants and convertible securities held by them. Further, some or all of the common stock sold in these transactions may become eligible for resale without registration under the provisions of Rule 144, upon satisfaction of the holding period and other requirements of the Rule.

In December 2007, we entered into a Securities Purchase Agreement with Platinum Montaur Life Sciences, LLC (Montaur), pursuant to which we issued Montaur a 10% Series A Convertible Senior Secured Promissory Note in the principal amount of \$7,000,000, \$3.5 million of which was convertible into shares of our common stock at the conversion price of \$0.26 per share, due December 26, 2011 (the Series A Note); and a five-year Series W warrant to purchase 6,000,000 shares of our common stock at an exercise price of \$0.32 per share. In April 2008, following receipt by the Company of clearance from the United States Food and Drug Administration to commence a Phase 3 clinical trial for Lymphoseek in patients with breast cancer or melanoma, we amended the Securities Purchase Agreement related to the second tranche and issued Montaur a 10% Series B Convertible Senior Secured Promissory Note in the principal amount of \$3,000,000, which was convertible into shares of our common stock at the conversion price of \$0.36 per share, also due December 26, 2011 (the Series B Note, and hereinafter referred to collectively with the Series A Note as the Montaur Notes); and a five-year Series X warrant to purchase 8,333,333 shares of our common stock at an exercise price of \$0.46 per share. In December 2008, after we obtained 135 vital blue dye lymph nodes from patients who had completed the injection of the drug and surgery in a Phase 3 clinical trial of Lymphoseek in patients with breast cancer or melanoma, we issued Montaur 3,000 shares of our 8% Series A Cumulative Convertible Preferred Stock (the Series A Preferred Stock) and a five-year Series Y warrant to purchase 6,000,000 shares of our common stock at an exercise price of \$0.575 per share (hereinafter referred to collectively with the Series W warrant and Series X warrant as the Montaur Warrants), for an aggregate purchase price of \$3,000,000. The "Liquidation Preference Amount" for the Series A Preferred Stock was \$1,000 and the "Conversion Price" of the Series A Preferred Stock was set at \$0.50 on the date of issuance, thereby making the shares of Series A Preferred Stock convertible into an aggregate 6,000,000 shares of our common stock, subject to adjustment as described in the Certificate of Designations.

In July 2009, we entered into a Securities Amendment and Exchange Agreement with Montaur, pursuant to which Montaur agreed to the amendment and restatement of the terms of the Montaur Notes, the Series A Preferred Stock, and the Montaur Warrants. The Series A Note was amended to grant Montaur conversion rights with respect to the \$3.5 million portion of the Series A Note that was previously not convertible. The newly convertible portion of the Series A Note was convertible into 3,600,000 shares of our common stock at \$0.9722 per share. The amendments also eliminated certain price reset features of the Montaur Notes, the Series A Preferred Stock and the Montaur Warrants that had created significant non-cash derivative liabilities on the Company's balance sheet. In conjunction with this transaction, we issued Montaur a Series AA Warrant to purchase 2.4 million shares of our common stock at an exercise price of \$0.97 per share, expiring in July 2014.

In June 2010, we entered into a Securities Exchange Agreement with Montaur, pursuant to which Montaur exchanged the Montaur Notes and the Series A Preferred Stock for 10,000 shares of Series B Convertible Preferred Stock (the Series B Preferred Stock), convertible into 32,700,000 shares of common stock. The Series B Preferred Stock is convertible at the option of Montaur, carries no dividend requirements and participates equally with our common stock in liquidation proceeds based upon the number of common shares into which the Series B Preferred Stock is then convertible. As consideration for the exchange, Neoprobe issued additional Series B Preferred Stock which is

convertible into 1.3 million shares of common stock.

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In November 2010, we entered into a Securities Purchase Agreement with institutional investors for a registered direct offering of 3,157,896 shares of our common stock at a price of \$1.90 per share for total gross proceeds of \$6.0 million. In addition to the common stock, we issued one-year Series CC warrants to purchase 1,578,948 shares of our common stock at an exercise price of \$2.11 per share, and two-year Series DD warrants to purchase 1,578,948 shares of our common stock at an exercise price of \$2.11 per share. As compensation for the services of the placement agent in connection with the offering, we paid the placement agent \$420,000 (7% of the gross proceeds) and issued five-year Series EE warrants to purchase 157,895 shares of our common stock at an exercise price of \$2.375 per share.

We have no way of knowing whether or when the investors will sell these shares. Depending upon market liquidity at the time, a sale of these shares 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, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

We may lose out to larger, better-established or better resourced competitors.

The medical device and biotechnology industries are intensely competitive. Many of our competitors have significantly greater financial, technical, manufacturing, regulatory, marketing and distribution resources as well as greater experience in these industries than we have. The particular medical conditions our product lines and product candidates 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, treatments and medications that replace or reduce the importance of the procedures that use our products. Accordingly, our success will depend, in part, on our ability to respond quickly to medical and technological changes through the development and introduction of new products. We may not have the resources to do this. If our products become obsolete and our efforts to develop new products do not result in any commercially successful products, our sales and revenues will decline.

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

Our success depends, in part, on our ability to secure and maintain patent protection for our products and product candidates, to preserve our trade secrets, and to operate without infringing on the proprietary rights 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.

Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are or may be developing products. As the biotechnology and pharmaceutical industry expands and more patents are issued, the risk increases that we will be subject to claims that our products or product candidates, or their use, infringe the rights of others. In the United States, patent applications are secret until patents are issued, and in foreign countries, patent applications are secret for a time after filing. Publications of discoveries tend to significantly lag the actual discoveries and the filing of related patent applications. Third parties may have already filed applications for patents for products or processes that will make our products obsolete, limit our patents, invalidate our patent applications or create a risk of infringement claims.

We or our suppliers may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our products, product candidates and/or technologies infringe their intellectual property rights or that the process of manufacturing our products or any of their respective component materials, or the component materials themselves, or the use of our products, product candidates or technologies, infringe their intellectual property rights. If one of these patents was found to cover our products, product candidates, technologies or their uses, or any of the underlying manufacturing processes or components, we could be required to pay damages and could be unable to commercialize our products or use our technologies or methods unless we are able to obtain a license to the patent or intellectual property right. A license may not be available to us in a timely manner or on acceptable terms, if at all. In addition, during litigation, a patent holder could obtain a preliminary injunction or other equitable remedy that could prohibit us from making, using or selling our products, technologies or methods.

In addition, it may be necessary for us to enforce patents under which we have rights, or to determine the scope, validity and unenforceability of other parties' proprietary rights, which may affect our rights. There can be no assurance that our patents would be held valid by a court or administrative body or that an alleged infringer would be found to be infringing. The uncertainty resulting from the mere institution and continuation of any patent related litigation or interference proceeding could have a material and adverse effect on us.

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.

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

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

We could be damaged by product liability claims.

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

limits of our insurance. Because personal injury claims based on product liability in a medical setting may be very large, an underinsured or an uninsured claim could financially damage our company.

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

Our business has experienced a number of successes and faced several challenges in recent 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. 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 and pharmaceutical industries, and the acquisition of additional product candidates may require us to acquire additional highly qualified personnel. The competition for qualified personnel in the biotechnology industry is intense and we may not be successful in hiring or retaining the requisite personnel. If we are unable to attract and retain qualified technical and management personnel, we will suffer diminished chances of future success.

Our failure to maintain continued compliance with the listing requirements of the NYSE Amex Equities exchange could result in the delisting of our common stock.

Our common stock is listed on the NYSE Amex Equities exchange, referred to as the Exchange, having recently been listed in February 2011. The rules of NYSE Amex provide that shares be delisted from trading in the event the financial condition and/or operating results of the Company appear to be unsatisfactory, the extent of public distribution or the aggregate market value of the common stock has become so reduced as to make further dealings on the Exchange inadvisable, the Company has sold or otherwise disposed of its principal operating assets, or has ceased to be an operating company, or the Company has failed to comply with its listing agreements with the Exchange. For example, the NYSE Amex normally will consider suspending trading in, or removing from the list, securities of an issuer that has stockholders' equity of less than \$6.0 million if such issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years. There can be no assurance that the Company will continue to meet the requirements necessary to maintain the listing of its common stock on the Exchange. For example, we may determine to grow our organization or product pipeline or pursue development or other activities at levels or on timelines that reduces our stockholders' equity below the level required to maintain compliance with NYSE Amex continued listing standards.

The delisting of our common stock from the NYSE Amex likely would reduce the trading volume and liquidity in our common stock and may lead to decreases in the trading price of our common stock. The delisting of our common stock may also materially impair our stockholders' ability to buy and sell shares of our common stock. In addition, the delisting of our common stock could significantly impair our ability to raise capital, which is critical to the execution of our current business strategy.

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

Our common stock traded as low as \$1.50 per share and as high as \$4.85 per share during the 12-month period ended April 26, 2011. The market price of our common stock has been and is expected to continue to be highly volatile. Factors, including announcements of technological innovations by us or other companies, regulatory matters, new or existing products or procedures, concerns about our financial position, operating results, litigation, government regulation, developments or disputes relating to agreements, patents or proprietary rights, may have a significant impact on the market price of our stock. In addition, potential dilutive effects of future sales of shares of common stock by the company and by stockholders, and subsequent sale of common stock by the holders of warrants and options could have an adverse effect on the market price of our shares.



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

- price and volume fluctuations in the stock market at large or of companies in our industry which do not relate to our operating performance;
- changes in securities analysts' estimates of our financial performance or deviations in our business and the trading price of our common stock from the estimates of securities analysts;
- FDA or international regulatory actions and regulatory developments in the U.S. and foreign countries;
- financing arrangements we may enter that require the issuance of a significant number of shares in relation to the number of shares currently outstanding;
- public concern as to the safety of products that we or others develop; and
- fluctuations in market demand for and supply of our products.

The realization of any of the foregoing could have a dramatic and adverse impact on the market price of our common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced substantial decline in market price. Moreover, regulatory entities often undertake investigations of investor transactions in securities that experience volatility following an announcement of a significant event or condition. Any such litigation brought against us or any such investigation involving our investors could result in substantial costs and a diversion of management's attention and resources, which could hurt our business, operating results and financial condition.

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

Historically, the trading volume for our common stock has been relatively limited. The average daily trading volume for our common stock on the OTC Bulletin Board for the 12-month period ended January 31, 2011 was approximately 194,000 shares. Following the listing of our common stock on the Exchange on February 10, 2011, trading in our common stock was more active; during the period beginning on February 10, 2011 and ending on April 21, 2011, the average daily trading volume for our common stock on the NYSE Amex was approximately 1.0 million shares. We cannot, however, assure that this trading volume will be consistently maintained in the future.

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

Our certificate of incorporation authorizes the creation and issuance of "blank check" preferred stock. Our Board of Directors may divide this stock into one or more series and set their rights. The Board of Directors may, without prior stockholder approval, issue any of the shares of "blank check" preferred stock with dividend, liquidation, conversion, voting or other rights, which could adversely affect the relative voting power or other rights of the common stock. Preferred stock could be used as a method of discouraging, delaying, or preventing a take-over of our company. If we issue "blank check" preferred stock, it could have a dilutive effect upon our common stock. This would decrease the chance that our stockholders would realize a premium over market price for their shares of common stock as a result of a takeover bid.

Because we do not expect to pay dividends on our common stock in the foreseeable future, stockholders will only benefit from owning common stock if it appreciates.

We have paid no cash dividends on any of our common stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, with respect to our common stock, we do not expect to pay any cash dividends in the foreseeable future, and payment of cash dividends, if any, will also depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Furthermore, we are subject to various laws and regulations that may restrict our

ability to pay dividends and we may in the future become subject to contractual restrictions on, or prohibitions against, the payment of dividends. Due to our intent to retain any future earnings rather than pay cash dividends on our common stock and applicable laws, regulations and contractual obligations that may restrict our ability to pay dividends on our common stock, the success of your investment in our common stock will likely depend entirely upon any future appreciation and there is no guarantee that our common stock will appreciate in value.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 (the Act) provides a safe harbor for forward-looking statements made by or on behalf of the Company. This prospectus and the information incorporated by reference in this prospectus contain forward-looking statements. We sometimes use words such as “anticipate,” “believe,” “continue,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will” and similar expressions, as the management and our industry, to identify forward-looking statements. Forward-looking statements relate to our expectations, beliefs, plans, strategies, prospects, future performance, anticipated trends and other future events. Specifically, this prospectus and the information incorporated by reference in this prospectus contain forward-looking statements relating to, among other things:

- our revenue;
- our primary operating costs and expenses;
- capital expenditures;
- evaluation of possible acquisitions of, or investments in business, products and technologies; and
- sufficiency of existing cash to meet operating requirements.

These statements involve known and unknown risks, uncertainties, and other factors that may cause our or our industry’s past results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Actual results may differ materially. Some of the risks, uncertainties and assumptions that may cause actual results to differ from these forward-looking statements are described in “Risk Factors” and elsewhere in this prospectus, and may also be found in an accompanying prospectus supplement and in information incorporated by reference.

You should read this prospectus, the documents that we filed as exhibits to the registration statement of which this prospectus is a part and the documents that we incorporate by reference in this prospectus completely and with the understanding that our future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements, and we assume no obligation to update these forward-looking statements publicly for any reason.

### WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION BY REFERENCE

We have filed a registration statement on Form S-3 with the Securities and Exchange Commission. This prospectus does not contain all of the information in the registration statement. In addition, we file annual, quarterly and special reports, proxy statements and other information with the Commission. Our Commission filings are available to the public over the Internet at the Commission’s web site at <http://www.sec.gov>. You may also read and copy any document we file with the Commission at its public reference facilities at 100 F Street, N.E., Washington, DC 20549. You can also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the Commission at 100 F Street, N.E., Washington, DC 20549. Please call the Commission at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

We “incorporate by reference” into this prospectus the information we file with the Commission (Commission file number 0-26520), which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information that we

file with the Commission after the date of this prospectus will automatically update this prospectus. We incorporate by reference the documents listed below, and any filings we make with the Commission under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 after the initial filing of the registration statement that contains this prospectus (except for information furnished and not filed with the Commission in a Current Report on Form 8-K):

- our Annual Report on Form 10-K for the year ended December 31, 2010, filed with the Commission on March 16, 2011;
- our Current Reports on Form 8-K, dated February 7, 2011 (filed February 7, 2011), dated February 14, 2011 (filed February 14, 2011), dated March 7, 2011 (filed March 7, 2011), as to Item 8.01 and Exhibit 99.2 thereto only, dated March 23, 2011 (filed March 23, 2011), dated March 30, 2011 (filed April 1, 2011), and dated April 18, 2011 (filed April 18, 2011); and
- the description of our common stock which is contained in our Form 8-A filed with the Commission pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, as updated in any amendment or report filed for the purpose of updating such description.

Information furnished by us in Current Reports on Form 8-K under Items 2.02 and 9.01 is expressly not incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge, upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You may request a copy of these filings at no cost, by writing to or telephoning us at:

Neoprobe Corporation  
Attn: Brent L. Larson  
425 Metro Place North  
Dublin, Ohio 43017-1367  
(614) 822-2330

#### USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus for general corporate purposes, which may include additions to working capital, repayment of indebtedness and financing capital expenditures and licenses or acquisitions. The prospectus supplement relating to a particular offering of securities by us will identify the use of proceeds for that offering. We will receive no proceeds from the sale of securities by the selling stockholders.

#### DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is only a summary and is subject to the provisions of our amended and restated certificate of incorporation, or certificate of incorporation, and our amended and restated by-laws, or by-laws, which are included as exhibits to the registration statement of which this prospectus forms a part, and provisions of applicable law.

Our certificate of incorporation authorizes our board of directors to issue 200,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of undesignated preferred stock, \$0.001 par value per share. As of April 26, 2011, 89,382,552 shares of common stock were issued outstanding, and 11,000 shares of preferred stock were issued and outstanding.

## 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 cannot be converted into any other kind of stock except in extraordinary transactions, such as mergers and court approved bankruptcy reorganizations.

## Preferred Stock

Our certificate of incorporation authorizes our board of directors to issue “blank check” preferred stock. The board of directors may divide this stock into series and set their rights. On December 26, 2007, the board of directors designated 3,000 shares of preferred stock as Series A 8% Cumulative Convertible Preferred Stock. On December 5, 2008, we issued 3,000 shares of Series A 8% Cumulative Convertible Preferred Stock (Series A Preferred Stock) to Montaur. On June 22, 2010, the board of directors designated 10,000 shares of preferred stock as Series B Convertible Preferred Stock, \$.001 par value (Series B Preferred Stock), and 1,000 shares of preferred stock as Series C Convertible Preferred Stock, \$.001 par value (Series C Preferred Stock). Also, on June 22, 2010: (1) Montaur surrendered the Amended Series A Note issued to it in December 2007, the Amended Series B Note issued to it in April 2008, and all 3,000 shares of Series A Preferred Stock issued to it on December 5, 2008, in exchange for 10,000 shares of Series B Preferred Stock; and (2) we issued 1,000 shares of Series C Preferred Stock to David C. Bupp, the Company’s former President and Chief Executive Officer, and Cynthia B. Gochoco, both individually and as co-executors of the Estate of Walter H. Bupp (the Bupp Investors). Montaur may convert all or any portion of the shares of Series B Preferred Stock into an aggregate 32,700,000 shares of our common stock, and the Bupp Investors

may convert all or any portion of the shares of Series C Preferred Stock into an aggregate 3,226,000 shares of our common stock.

The board of directors may, without prior stockholder approval, issue any of the remaining 4,989,000 shares of authorized preferred stock with dividend, liquidation, conversion, voting or other rights which could adversely affect the relative voting power or other rights of the common stock. Preferred stock could be used as a method of discouraging, delaying, or preventing a take-over of our Company. If we do issue preferred stock in the future, it could have a dilutive effect upon the common stock. See Risk Factors.

#### DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock in one or more series. We may issue warrants independently or together with common stock, and the warrants may be traded separate and apart from our common stock. Each series of warrants will be issued under a warrant agreement, as described in the applicable prospectus supplement. We urge you to read any applicable warrant agreements, because those documents, and not these descriptions, define your rights as a holder of warrants. A copy of the form of warrant agreement reflecting the provisions of the warrants in a particular offering will be filed as an exhibit to a Current Report on Form 8-K, to be incorporated into the registration statement of which this prospectus constitutes a part prior to the issuance of any warrants.

The applicable prospectus supplement will describe the terms of the warrants offered thereby and the warrant agreement relating to such warrants, including but not limited to the following:

- the offering price or prices;
- the aggregate amount of common stock that may be purchased upon exercise of such warrants and minimum number of warrants that are exercisable;
  - the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the number of securities, if any, with which such warrants are being offered and the number of such warrants being offered with each security;
  - the date on and after which such warrants and the related securities, if any, will be transferrable separately;
- the amount of securities purchasable upon exercise of each warrant and the price at which the securities may be purchased upon such exercise, and events or conditions under which the amount of securities may be subject to adjustment;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
  - the circumstances, if any, which will cause the warrants to be deemed to be automatically exercised;
  - any material risk factors, if any, relating to such warrants;
  - the identity of any warrant agent; and
- any other terms of such warrants (which shall not be inconsistent with the provisions of the warrant agreement).

The terms of the warrants that we offer may or may not have the same material terms as our currently outstanding warrants.

Prior to the exercise of any warrants, holders of such warrants will not have any rights of holders of the securities purchasable upon such exercise, including the right to receive payments of dividends, if any, on the securities purchasable upon such exercise, statutory appraisal rights or the right to vote such underlying securities. Prospective purchasers of warrants should be aware that material U.S. federal income tax, accounting and other considerations may be applicable to instruments such as warrants.

## DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase common stock, preferred stock, or other securities. We may issue subscription rights independently or together with any other offered security, which may or may not be transferable by the securityholder. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any subscription rights we may offer will contain the specific terms of the subscription rights. These terms may include the following:

- the price, if any, for the subscription rights;
- the exercise price payable for each common stock, preferred stock, or other securities upon the exercise of the subscription rights;
- the number of subscription rights issued to each securityholder;
- the number and terms of each common stock, preferred stock, or other securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any provisions for adjustment of the number or amount of securities receivable upon exercise of the subscription rights or the exercise price of the subscription rights;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities; and
- if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of subscription rights.

The description in the applicable prospectus supplement of any subscription rights we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable subscription rights certificate or subscription rights agreement, which will be filed with the Commission if we offer subscription rights. For more information on how you can obtain copies of any subscription rights certificate or subscription rights agreement if we offer subscription rights, see the section entitled “Where You Can Find More Information” beginning on page 15 of this prospectus. We urge you to read the applicable subscription rights certificate, the applicable subscription rights agreement and any applicable prospectus supplement in their entirety.

## DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts for the purchase or sale of common stock, preferred stock or other securities issued by us or by third parties as specified in the applicable prospectus supplement. Each purchase contract will entitle the holder thereof to purchase or sell, and obligate us to sell or purchase on specified dates, such securities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any, with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value of the securities otherwise deliverable, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract. The price per security and the number of securities may be fixed at the time the purchase contracts are entered into or may be determined by reference to a specific formula set forth in the applicable

purchase contracts.

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The purchase contracts may be issued separately or as part of units consisting of a purchase contract and debt securities or debt obligations of third parties, including U.S. treasury securities, or any other securities described in the applicable prospectus supplement or any combination of the foregoing, securing the holders' obligations to purchase the securities under the purchase contracts, which we refer to herein as "purchase units."

The purchase contracts may require holders to secure their obligations under the purchase contracts in a specified manner. The purchase contracts also may require us to make periodic payments to the holders of the purchase contracts or the purchase units, as the case may be, or vice versa, and those payments may be unsecured or pre-funded on some basis.

The prospectus supplement relating to any purchase contracts or purchase units we may offer will contain the specific terms of the purchase contracts or purchase units. These terms may include the following:

- whether the purchase contracts obligate the holder to purchase or sell, or both, our common stock, preferred stock, or debt securities, and the nature and amount of each of those securities, or method of determining those amounts;
  - whether the purchase contracts are to be prepaid or not;
- whether the purchase contracts are to be settled by delivery, or by reference or linkage to the value, performance or level of our common stock or preferred stock;
- any acceleration, cancellation, termination or other provisions relating to the settlement of the purchase contracts; and
  - whether the purchase contracts will be issued in fully registered global form.

The description in the applicable prospectus supplement of any purchase contract or purchase unit we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable purchase contract or purchase unit, which will be filed with the Commission if we offer purchase contracts or purchase units. For more information on how you can obtain copies of any purchase contract or purchase unit we may offer, see the section entitled "Where You Can Find More Information" beginning on page 15 of this prospectus. We urge you to read the applicable purchase contract or applicable purchase unit and any applicable prospectus supplement in their entirety.

#### DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. A unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
  - any additional terms of the governing unit agreement.

The applicable prospectus supplement will describe the terms of any units. The preceding description and any description of units in the applicable prospectus supplement does not purport to be complete and is subject to and is qualified in its entirety by reference to the unit agreement and, if applicable, collateral arrangements and depositary arrangements relating to such units.



## ANTI-TAKEOVER CHARTER PROVISIONS AND LAWS

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

### Limitations on Stockholder Actions

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

### Advance Notice Provisions

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

### Delaware Law

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

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

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

### Classified Board

Our certificate of incorporation and by-laws divide our board of directors into three classes with staggered three year terms. There are currently seven directors, three each in two classes and one in an additional 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 9 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.

#### Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company, located in New York, New York.

### SELLING STOCKHOLDERS

Under this prospectus and any applicable supplements, the selling stockholders may sell shares of our common stock. These shares may be acquired by the selling stockholders upon the exercise of the Montaur Warrants, and/or upon conversion of outstanding shares of our Series B Preferred Stock, which were issued in June 2010 in exchange for the Montaur Notes and the Series A Preferred Stock. The selling stockholders may also sell shares of common stock that were issued to it as interest on the Montaur Notes prior to the June 2010 exchange, or as preferred dividends on the Series A Preferred Stock prior to the June 2010 exchange. As used in this prospectus, “selling stockholders” will refer to the selling stockholders along with any pledgees, assignees, donees, transferees or successors in interest.

The following table presents information regarding the selling stockholder and the shares that may be sold by it pursuant to this prospectus.

Selling Stockholder	Shares Owned Before Offering (1)	Percentage of Outstanding Shares Owned Before Offering (1)	Shares to be Sold in the Offering	Percentage of Outstanding Shares Owned After Offering (1)
Platinum-Montaur Life Sciences, LLC (2)(3)	9,600,744	9.99%	12,500,000	9.99%

(1) The ownership percentages listed in these columns include only shares beneficially owned by the listed selling stockholders. 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 warrants or preferred stock convertible into common stock held by that selling stockholder that were exercisable on or within 60 days after April 26, 2011, were deemed outstanding for the purpose of computing the percentage ownership of that selling stockholder. The ownership percentages are calculated assuming that 89,382,552 shares of common stock were outstanding on April 26, 2011. Of the 9,600,744 shares set forth in the table above, 1,467,233 are held by Platinum Partners Value Arbitrage Fund, LP, a Cayman Island exempt partnership (“PPVAF”). PPVAF’s address is 152 West 57th Street, 4th Floor, New York, NY. None of the shares held by PPVAF are being offered hereby.



(2) Prior to giving effect to the offering, Platinum-Montaur Life Sciences, LLC (“Montaur”), 152 W. 57th Street, 4th Floor, New York, NY 10019, holds: (a) 10,000 shares of our Series B Preferred Stock convertible into 32,700,000 shares of our common stock; and (b) warrants to purchase 16,733,333 shares of our common stock. Each of our shares of preferred stock and warrants held by Montaur provide that Montaur may not convert any of the preferred stock, or exercise any of the warrants, to the extent that such conversion or exercise would result in the holder and its affiliates together beneficially owning more than 9.99% of the outstanding shares of our common stock, except on 61 days’ prior written notice to us that Montaur waives such limitation. Following the offering, assuming the sale of all shares of our common stock offered hereby, Montaur will still beneficially own 9,600,744 shares of our common stock.

(3) Platinum Management (NY) LLC, a Delaware limited liability company (“Platinum Management”), is the managing member of Montaur and is the investment manager and general partner of PPVAF. Mark Nordlicht and Uri Landesman are the controlling persons of Platinum Management. Each of Mr. Nordlicht and Mr. Landesman disclaims beneficial ownership of such shares except to the extent of his respective pecuniary interest in the selling stockholder.

For each sale of common stock by a selling stockholder, we will file a prospectus supplement setting forth, with respect to each selling stockholder:

- the name of the selling stockholder;
- the nature of any position, office or other material relationship which the selling stockholder will have had during the prior three years with us or any of our predecessors or affiliates;
  - the number of common shares owned by the selling stockholder prior to the offering;
  - the number of common shares to be offered for the selling stockholder’s account; and
- the number of shares and (if one percent or more) the percentage of our common shares to be owned by the selling stockholder after completion of the offering.

#### PLAN OF DISTRIBUTION

We and the selling stockholders may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We and the selling stockholders may sell the securities separately or together:

- through one or more underwriters or dealers in a public offering and sale by them;
  - through agents; and/or
- directly to one or more purchasers.

The securities may be distributed from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;



- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We or the selling stockholders may solicit directly offers to purchase the securities being offered by this prospectus, and may also designate agents to solicit offers to purchase the securities from time to time. We will name in a prospectus supplement any agent involved in the offer or sale of the securities.

If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we or the selling stockholders utilize an underwriter in the sale of the securities being offered by this prospectus, we and/or the selling stockholders will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8.0% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

We will provide in the applicable prospectus supplement any compensation we will pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act or to contribute to payments they may be required to make in respect thereof.

The securities may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.



We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with any derivative transaction, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement or a post-effective amendment to the registration statement of which this prospectus is a part. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The selling stockholders may also sell our common stock in one or more privately negotiated transactions exempt from the registration requirements of the Securities Act pursuant to Rule 144 under the Securities Act, Section 4(1) of the Securities Act or other applicable exemptions, regardless of whether the securities are covered by the registration statement of which this prospectus forms a part. Such sales, if any, will not form part of the plan of distribution described in this prospectus. The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each such sale.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

#### LEGAL MATTERS

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 financial statements as of December 31, 2010 and 2009 and for each of the years then ended and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2010 incorporated by reference in this Prospectus have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

## Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses expected to be incurred by our company in connection with the issuance and distribution of the securities being registered.

Commission registration fee	\$18,532.50
Legal fees and expenses	**
Accounting fees	\$10,000.00
Printing expenses	**
Miscellaneous	\$1,000.00
<b>Total</b>	<b>\$29,532.50</b>

\*\* Estimated expenses are presently not known and cannot be estimated.

## Item 15. Indemnification of Directors and Officers.

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

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

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

Item 16. Exhibits.

Exhibit Number	Footnote	Exhibit Description
1.1	*	Form of Underwriting Agreement.
4.1	(a)	Amended and Restated Certificate of Incorporation of Neoprobe Corporation as corrected February 18, 1994 and amended June 27, 1994, June 3, 1996, March 17, 1999, May 9, 2000, June 13, 2003, July 27, 2004, June 22, 2005, November 20, 2006, December 26, 2007, April 30, 2009, July 27, 2009 and August 2, 2010.
4.2	(b)	Amended and Restated By-Laws dated July 21, 1993, as amended July 18, 1995, May 30, 1996 and July 26, 2007.
4.3	*	Form of Certificate of Designation for the Preferred Stock (together with Preferred Stock Certificate)
4.4	*	Form of Warrant Agreement (together with form of Warrant Certificate)
4.5	*	Form of Subscription Rights Agreement (together with Subscription Rights Certificate)
4.6	*	Form of Purchase Contract (together with form of Purchase Contract Certificate)
4.7	*	Form of Unit Agreement (together with form of Unit Certificate)
5.1	**	Opinion of Porter, Wright, Morris & Arthur LLP.
23.1	**	Consent of Porter, Wright, Morris & Arthur LLP (included in Exhibit 5).
23.2	**	Consent of Independent Registered Public Accounting Firm.
24.1	**	Power of Attorney.

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\*To be subsequently filed, if applicable, by an amendment to the Registration Statement or by a Current Report on Form 8-K.

\*\* Filed herewith.

(a) Incorporated by reference to Exhibit 4.1 previously filed on August 3, 2010, with the Company's Registration Statement on Form S-3.

(b) Incorporated by reference to Exhibit 3.2 previously filed on August 3, 2007, with Neoprobe's Current Report on Form 8-K.

Item 17. Undertakings.

(a) The undersigned hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

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- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high and of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement;

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

- (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

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(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to the directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(d) The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Dublin, State of Ohio, on April 27, 2011.

## NEOPROBE CORPORATION

/s/ Brent L. Larson  
 Brent L. Larson, Senior Vice President, Chief  
 Financial  
 Officer, Treasurer and Secretary

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
* Mark J. Pykett Mark J. Pykett	President and Chief Executive Officer (principal executive officer)	April 27, 2011
/s/ Brent L. Larson Brent L. Larson	Senior Vice President, Chief Financial Officer, Treasurer and Secretary (principal financial officer and principal accounting officer)	April 27, 2011
* Carl J. Aschinger, Jr. Carl J. Aschinger, Jr.	Chairman of the Board of Directors	April 27, 2011
* Gordon A. Troup Gordon A. Troup	Vice Chairman of the Board of Directors	April 27, 2011
*David C. Bupp David C. Bupp	Director	April 27, 2011
* Peter Drake, Ph.D. Peter Drake, Ph.D.	Director	April 27, 2011
* Brendan A. Ford Brendan A. Ford	Director	April 27, 2011
* Owen E. Johnson, M.D. Owen E. Johnson, M.D.	Director	April 27, 2011
* Jess Jones, M.D. Jess Jones, M.D.	Director	April 27, 2011
* Fred B. Miller	Director	April 27, 2011

Fred B. Miller

\* Eric K. Rowinsky, M.D.  
Eric K. Rowinsky, M.D.

Director

April 27, 2011

\* By: /s/ Brent L. Larson  
Brent L. Larson, attorney-in-fact for each  
of the persons indicated

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Exhibit Index

Exhibit Number	Footnote	Exhibit Description
1.1	*	Form of Underwriting Agreement.
4.1	(a)	Amended and Restated Certificate of Incorporation of Neoprobe Corporation as corrected February 18, 1994 and amended June 27, 1994, June 3, 1996, March 17, 1999, May 9, 2000, June 13, 2003, July 27, 2004, June 22, 2005, November 20, 2006, December 26, 2007, April 30, 2009, July 27, 2009 and August 2, 2010.
4.2	(b)	Amended and Restated By-Laws dated July 21, 1993, as amended July 18, 1995, May 30, 1996 and July 26, 2007.
4.3	*	Form of Certificate of Designation for the Preferred Stock (together with Preferred Stock Certificate)
4.4	*	Form of Warrant Agreement (together with form of Warrant Certificate)
4.5	*	Form of Subscription Rights Agreement (together with Subscription Rights Certificate)
4.6	*	Form of Purchase Contract (together with form of Purchase Contract Certificate)
4.7	*	Form of Unit Agreement (together with form of Unit Certificate)
5.1	**	Opinion of Porter, Wright, Morris & Arthur LLP.
23.1	**	Consent of Porter, Wright, Morris & Arthur LLP (included in Exhibit 5).
23.2	**	Consent of Independent Registered Public Accounting Firm.
24.1	**	Power of Attorney.

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\*To be subsequently filed, if applicable, by an amendment to the Registration Statement or by a Current Report on Form 8-K.

\*\* Filed herewith.

(a) Incorporated by reference to Exhibit 4.1 previously filed on August 3, 2010, with the Company's Registration Statement on Form S-3.

(b) Incorporated by reference to Exhibit 3.2 previously filed on August 3, 2007, with Neoprobe's Current Report on Form 8-K.

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