NEOPROBE CORP
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Registration No. 333-168485

PROSPECTUS SUPPLEMENT
(To Prospectus Dated August 9, 2010)

Neoprobe Corporation

3,157,896 Shares of Common Stock
Series CC Warrants to Purchase 1,578,948 Shares of Common Stock
Series DD Warrants to Purchase 1,578,948 Shares of Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 3,157,896 shares of our common stock, Series CC warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series CC warrants), and Series DD warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series DD warrants) to certain institutional investors, or collectively, the Initial Purchasers. The purchase price for each share of common stock, and a warrant to purchase one share of common stock is $1.90 (in the aggregate, half of the warrants purchased by each Initial Purchasers are Series CC Warrants and half are Series DD Warrants). The Series CC warrants are exercisable for one year beginning on the date of issuance and have an exercise price of $2.11 per share. The Series DD warrants are exercisable for two years beginning on the date of issuance, and have an exercise price of $2.11 per share.

For a more detailed description of the Series CC warrants and Series DD warrants, see the section entitled “Description of the Warrants” beginning on page S-10 of this prospectus supplement. For a detailed description of our common stock, see the section entitled “Description of Capital Stock” beginning on page S-11 of this prospectus supplement.

Rodman & Renshaw, LLC acted as the sole placement agent on this transaction. The placement agent is not purchasing or selling any of these securities nor is it required to sell any specific number or dollar amount of securities, but has agreed to use its reasonable best efforts to sell the securities offered by this prospectus supplement.

The Series CC and Series DD warrants will not be listed on any national securities exchange. Our common stock is quoted on the OTC Bulletin Board under the symbol "NEOP." On November 5, 2010, the last reported sale price of our common stock was $2.14 per share.

Investing in our common stock involves risks. See "Risk Factors" on page S-8 of this prospectus supplement. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus carefully before you make an investment decision.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Shares of Common Stock and Warrant	Per Share of Common Stock and Warrant(1)	Total
Offering price per share of common stock and warrant	3,157,896	$ 1.90	$ 6,000,002
Placement Agent Fees(2)		$ 0.133	$ 420,000
Total Proceeds to Us Before Other Expenses(3)		$ 1.767	$ 5,580,002

(1) Table excludes shares of common stock issuable upon exercise of the Series CC and Series DD warrants offered hereby.

(2) A fee equal to 7% of the aggregate proceeds raised in this offering will be payable to the placement agent. In addition to the placement agent fees, the placement agent will receive warrants to purchase up to 157,895 shares of common stock pursuant to this prospectus supplement. Please see the “Plan of Distribution” on page S-12 for further description of this arrangement.

(3) We estimate the total expenses of this offering, excluding the placement agent's fees, will be approximately $80,000.

Delivery of the common stock and Series CC and Series DD warrants to the Initial Purchasers will be made on or about November 10, 2010.

Rodman and Renshaw, LLC

The date of this prospectus supplement is November 7, 2010.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS SUPPLEMENT

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus, or to which we have referred you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction where it is unlawful to make such offer or solicitation. You should not assume that the information contained in this prospectus supplement or the accompanying prospectus, or any document incorporated by reference in this prospectus supplement or the accompanying prospectus, is accurate as of any date other than the date on the front cover of the applicable document. Neither the delivery of this prospectus supplement nor any distribution of securities pursuant to this prospectus supplement shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference into this prospectus supplement or in our affairs since the date of this prospectus supplement. Our business, financial condition, results of operations and prospects may have changed since that date.

This document is in two parts. The first part is the prospectus supplement, which adds to and updates information contained in the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus, on the other hand, you should rely on the information in this prospectus supplement.

Before purchasing any securities, you should carefully read both this prospectus supplement and the accompanying prospectus, together with the additional information described under the heading, "Where You Can Find More Information," in this prospectus supplement.

Unless the context otherwise requires, references in this prospectus supplement to "we", "us," "our" and “Neoprobe” refer to Neoprobe Corporation and its subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the "Risk Factors" section and our consolidated financial statements and the related notes and the other documents incorporated by reference in the accompanying prospectus.

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. In addition to our medical device products, we have two radiopharmaceutical products, Lymphoseek® and RIGScanTM 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).

Product Line Overview

We believe Neoprobe's prospects continue to be bright as we accomplish developmental milestones in our key growth areas, especially related to our Lymphoseek initiative. Our gamma detection device line continues to provide a strong revenue base. Revenue from our gamma detection device product line for the first nine months of 2010 has exceeded our original expectations, and while we expect overall revenue from our gamma detection device products to continue to be strong for 2010 as a whole, we expect revenue from this line during the fourth quarter of 2010 to be relatively consistent with the fourth quarter of 2009. We expect to continue to incur modest development expenses to support our gamma detection device product line as well as we work with our marketing partners to expand our product offerings in the gamma detection device arena. Our primary development efforts over the last few years have been focused on our oncology drug development initiatives, Lymphoseek and RIGScan CR. We continue to make progress with both initiatives; however, neither Lymphoseek nor RIGScan CR is anticipated to generate any significant revenue for us during 2010.

In August 2009, our Board of Directors decided to discontinue operations of Cardiosonix and to attempt to divest our Cardiosonix subsidiary. This decision was based on the determination that the blood flow measurement device segment was no longer considered a strategic initiative of the Company, due in large part to positive events in our other development initiatives. Until a sale is completed, we expect to continue to generate modest revenues and incur minimal expenses related to our blood flow measurement device business.

Our efforts thus far in 2010 have resulted in the following milestone achievements:

- Completion of a successful meeting with the United States Food and Drug Administration (FDA) to review the Phase 3 (NEO3-05) clinical study results and discuss development plans to support a New Drug Application (NDA) submission for Lymphoseek as a lymphatic tissue tracing agent;
- Completion of successful pre-NDA dialogue with FDA on Lymphoseek pre-clinical data;
- Completion of successful pre-NDA dialogue with FDA on Lymphoseek chemistry, manufacturing and control data;

S-1

- Initiation of a third Lymphoseek Phase 3 clinical study in subjects with breast cancer or melanoma (NEO3-09) to support filing of the NDA with the potential to expand Lymphoseek's product labeling;

- Validation of the first lot of commercial drug product of Lymphoseek that will be used for the commercial launch of the product in the United States upon NDA clearance;

- Election of two new directors to Neoprobe's Board, bringing significant drug development and medical product industry expertise;

- Completion of exchange transactions that effectively converted all of the Company's outstanding debt to equity;

- Were awarded grants of over $1.2 million to support Lymphoseek development through non-dilutive funding;

- Filed a shelf registration on Form S-3 to allow the Company to raise capital as necessary to provide us with additional financial planning flexibility and to support the diversification of our share ownership to new institutions;

- Completion of a pre-NDA meeting for Lymphoseek clarifying the regulatory pathway for Lymphoseek approval; and

- Filed a complete response to the open biologic license application (BLA) for RIGScan CR.

Our operating expenses during the first nine months of 2010 were focused primarily on support of Lymphoseek product development and on efforts to re-qualify the manufacturing process for our RIGScan CR product initiative. Our drug-related development expenses for the first nine months of 2010 have been considerably higher than 2009 as we prepared for the planned filing of a NDA for Lymphoseek and as we continue the other clinical evaluations of Lymphoseek to support post-marketing amendments to the NDA.

Lymphoseek

During 2008, we initiated patient enrollment in a Phase 3 clinical study in subjects with either breast cancer or melanoma (NEO3-05). In March 2009, we announced that this study had reached the accrual of 203 lymph nodes, the study's primary accrual objective. The NEO3-05 Phase 3 clinical study was an open label trial of node-negative subjects with either breast cancer or melanoma. It was designed to evaluate the safety and the accuracy of Lymphoseek while identifying the lymph nodes draining from the subject's tumor site. To demonstrate the accuracy of Lymphoseek, each subject consenting to participate in the study was injected in proximity to the tumor with Lymphoseek and one of the vital blue dyes that are commonly used in lymphatic mapping procedures. The primary efficacy objective of the study was to identify lymph nodes that contained the vital blue dye and to demonstrate a statistically acceptable concordance rate between the identification of lymph nodes with the vital blue dye and Lymphoseek. To be successful, the study needed to achieve a statistical p-value of at least 0.05. In addition, the secondary endpoint of the study was to pathologically examine lymph nodes identified by either the vital blue dyes or Lymphoseek to determine if cancer was present in the lymph nodes.

In June 2009, we initiated a Phase 3 clinical trial to be conducted in subjects with head and neck squamous cell carcinoma (NEO3-06). The NEO3-06 clinical study was designed to expand the potential labeling for Lymphoseek as a sentinel lymph node targeting agent after the initial marketing clearance for the product. Our discussions with FDA and the European Medicinal Evaluation Agency (EMEA) have also suggested that the NEO3-06 clinical trial will further support the use of Lymphoseek in sentinel lymph node biopsy procedures. We believe the outcome of the trial will be beneficial to the marketing and commercial adoption of Lymphoseek in the U.S. and European Union (EU).

Based on the discussion with FDA regarding NEO3-05 in March 2010, we expanded the scope of NEO3-06 and we now plan to have approximately 20 participating institutions in the NEO3-06 clinical trial. Subject recruitment and enrollment is actively underway at a number of institutions and the trial protocol is currently under review at several other institutions. The accrual rate for trials of this nature is highly dependent on the timing of institutional review board approvals of the NEO3-06 protocol. Our experience in the NEO3-05 trial has shown that this process may be lengthening due to risk management concerns on the part of hospitals participating in clinical trials, as well as other factors.

In March 2010, Neoprobe met with FDA to review the clinical outcomes of NEO3-05. The meeting included a review of the efficacy and safety results of the NEO3-05 clinical study and Neoprobe's plans for the submission of a NDA for Lymphoseek based on the results of NEO3-05 and other previously completed clinical studies. During the meeting, Neoprobe provided FDA with the clinical results of the protocol-compliant clinical sites that participated in the NEO3-05 clinical study that contributed 136 intent-to-treat subjects who provided 215 lymph nodes containing the vital blue dye. 210 of the vital blue dye positive lymph nodes contained Lymphoseek for an overall concordance rate of 98%, achieving a very high level of statistical correlation (p-value = 0.0001) for the primary endpoint of the clinical study. Prior to the meeting, FDA requested that Neoprobe conduct a "reverse concordance" assessment of the clinical study where Lymphoseek might identify lymph nodes missed by the vital blue dyes. This assessment showed that Lymphoseek was able to identify 85 additional lymph nodes that did not contain the vital blue dye, and 18% of these nodes were found by pathology to contain cancer. There were no significant reported safety events related to Lymphoseek. FDA indicated that the clinical data from the NEO3-05 clinical study and other completed clinical evaluations of Lymphoseek would be supportive of a NDA submission for Lymphoseek. FDA also encouraged Neoprobe to request a series of pre-NDA meetings to review the non-clinical and chemistry, manufacturing and control (CMC) components of the NDA prior to its formal submission. Neoprobe completed successful non-clinical and CMC pre-NDA reviews with FDA during the second quarter of 2010.

In July 2010, Neoprobe initiated enrollment in another Phase 3 clinical evaluation of Lymphoseek in subjects with either breast cancer or melanoma (NEO3-09). This trial was originally intended as a supplement to the primary NDA for Lymphoseek for safety evaluation purposes and to support expanded product labeling claims. NEO3-09 is currently enrolling patients at eight study sites across the U.S. Neoprobe expects this study to be completed in the first quarter of 2011.

In October 2010, Neoprobe met with FDA for a pre-NDA assessment for Lymphoseek. As a result of the pre-NDA assessment, FDA requested that data from both the completed NEO3-05 study and the NEO3-09 study currently in progress be included in the Company's primary NDA for Lymphoseek rather than submitting the NEO3-09 study data as a planned major amendment to the ongoing NDA review. The pre-NDA assessment resulted in no modification to the NEO3-09 trial design or endpoints or to any of the other previously agreed-to clinical or regulatory components of the Lymphoseek NDA. As such, NEO3-09 will now be one of two adequate and well-controlled trials included in the primary NDA submission for a first-cycle review.

The Lymphoseek NDA submission will be based on the clinical results of NEO3-05, NEO3-09, and other already completed clinical evaluations of Lymphoseek. The request for the total data package from two clinical trials is consistent with FDA's ongoing initiative to push for more complete primary submissions and to limit major amendments made to NDAs. This ongoing initiative to shorten drug review cycle times was re-emphasized by FDA's Office of New Drug Development in late 2009 and enables more successful first-cycle reviews which ultimately shortens overall drug approval timelines. We believe the earlier than originally planned inclusion of the NEO3-09 study data may support stronger product labeling as an outcome of a first-cycle review of the Lymphoseek NDA and may also positively impact market adoption.

We plan to use the safety and efficacy results from the Phase 3 clinical evaluations of Lymphoseek, which will include sites in the EU, to support the drug registration application process in the EU as well as to amend the filing in the U.S. for expanded product labeling. Neoprobe expects to submit the NDA for Lymphoseek during the first half of 2011. Depending on the timing of the final pre-NDA meeting with FDA and the outcome of the FDA regulatory review cycle, we believe that Lymphoseek could be commercialized in early 2012. We cannot assure you, however, that this product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

S-3

RIGScan CR

Over the past few years, we have also made progress in advancing our RIGScan CR development program while incurring minimal research expenses. Our RIGS® technology, which had been essentially inactive since failing to gain approval following our original license application in 1997, has been the subject of renewed interest due primarily to the analysis of survival data related to patients who participated in the original Phase 3 clinical studies that were completed in 1996. During 2008, we submitted and received approval from EMEA for a plan to continue the clinical development for RIGScan CR. The clinical protocol we submitted to EMEA involves approximately 400 patients in a randomized trial of patients with colorectal cancer. The participants in the trial would be randomized to either a control or RIGS treatment arm. Patients randomized to the RIGS arm would have their disease status evaluated at the end of their cancer surgery to determine the presence or absence of RIGS-positive tissue. Patients in both randomized arms would be followed to determine if patients with RIGS-positive status have a lower overall survival rate and/or a higher occurrence of disease recurrence. The hypothesis for the trial is based upon the data from the earlier NEO2-13 and NEO2-14 trial results.

Our desire has been, and continues to be, to develop a clinical development plan which is harmonized between the U.S. and the EU. To that end, during December 2009 we submitted an investigational new drug (IND) amendment to FDA which included the design of a proposed Phase 3 clinical trial of RIGScan CR. The IND amendment included a Special Protocol Assessment (SPA) request in accordance with the Prescription Drug User Fee Act of 1992 and current regulatory guidelines, and a commitment to register on the clinicaltrials.gov website following discussions with FDA regarding the SPA. Since filing the IND amendment and SPA request, we have determined that due to differences in the current manufacturing process from the process used in the 1990's, a further amendment to the IND should be filed addressing the differences. In addition, in October 2010, we filed a response letter to FDA related to the Agency's complete response letter to the open BLA from 1997. The review responsibility for the RIGS BLA was recently transferred from the Center for Biologics Evaluation and Research (CBER) to the Division of Medical Imaging Products in the Center for Drug Evaluation and Research (CDER) at FDA. The submission of the BLA response letter is the first of several near-term activities that Neoprobe intends to complete with FDA to reactivate the development of the RIGS technology. We intend to file a new IND request for the biologic component of the RIGS technology. The IND request will be accompanied by a synopsis of a revised proposed Phase 3 clinical trial design. Once FDA has assigned a new IND, we will file the complete protocol for FDA evaluation under the provisions of a SPA. A SPA review of the prospective protocol is expected to provide a clear development pathway for RIGS in 2011. As a result, we do not expect to receive feedback from FDA on a RIGS SPA request until sometime in the first quarter of 2011.

The Phase 3 clinical study as currently envisioned would be a randomized clinical study that would evaluate the ability of RIGScan CR to identify tumor-associated tissue in a group of patients as compared to a group of patients provided with traditional surgical care. Based on our current statistical analysis, we now believe the sample size for the proposed Phase 3 clinical study would be approximately 300 patients including both the RIGScan CR and traditional treatment groups. The primary endpoint of the trial as proposed is the assessment of the diagnostic ability of RIGScan CR to identify tumor-associated tissue, with a secondary endpoint of the change of the treatment paradigm of the RIGScan CR treated patients compared to patients treated with conventional treatment modalities.

It should also be noted that the RIGScan CR biologic drug has not been produced for several years. We are in the process of performing drug characterization work to ensure the drug cell line is still viable and submit this data to EMEA and possibly FDA for their evaluation in connection with preparations to restart pivotal clinical trials. During the third quarter of 2009, we announced that we had executed a Biopharmaceutical Development and Supply Agreement with Laureate Pharma, Inc. This agreement will support the initial evaluation of the viability of the CC49 master working cell bank as well as the initial steps in re-validating the commercial production process for the

biologic agent used in RIGScan CR. Laureate has made progress in the re-validation of the manufacturing process and has completed preliminary biologic characterization activities. They are expected to provide Neoprobe with GMP-produced material to support non-clinical and clinical evaluation within the next few months. In addition, we will need to re-establish radiolabeling capabilities for the CC49 antibody in order to meet the regulatory needs for the RIGScan CR product. We have also begun discussions with parties capable of supporting such activities.

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

Activated Cellular Therapy

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

We expect our gamma detection device products to contribute a net profit in 2010 for that line of business, excluding general and administrative costs, interest and other financing-related charges. Our overall operating results for 2010 will also be greatly affected by the increased level of development activity we have conducted in 2010 to support our radiopharmaceutical products. Primarily as a result of the significant development costs we expect to incur related to the continued clinical development of Lymphoseek and RIGScan CR, we do not expect to achieve overall operating profitability during 2010. We cannot assure you that our current or potential new products will be successfully commercialized, that we will achieve significant product revenues, or that we will achieve or be able to sustain profitability in the future.

Corporate Information

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. 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.

THE OFFERING

The following is a brief summary of some of the terms of this offering and is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus supplement and the accompanying prospectus.

Securities we are offering	3,157,896 shares of common stock, Series CC warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series CC warrants), and Series DD warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series DD warrants). The purchase price for each share of common sock, and a warrant to purchase one share of common stock is $1.90 (in the aggregate, half of the warrants purchased by each Initial Purchasers are Series CC Warrants and half are Series DD Warrants). The shares of common stock and warrants will be issued separately, but can only be purchased together in this offering.
Description of the Series CC Warrants and Series DD Warrants	The Initial Purchasers will receive a warrant to purchase one share of common stock for each share of common stock purchased in this offering (in the aggregate, half of the warrants purchased must be Series CC Warrants and half must be Series DD Warrants). The Series CC warrants and Series DD Warrants are each exercisable at an exercise price of $2.11 per share of common stock. The Series CC Warrants are exercisable for one year after the date of issuance, and the Series DD Warrants are exercisable fro two years after the date of issuance. See “Description of Warrants.”
Limitation on Exercise of Warrants	No holder may exercise its warrants to the extent that the exercise would result in the holder and its affiliates beneficially owning 4.99% or more of our common stock, provided that a holder may elect to increase the exercise threshold to 9.99% of our common stock by providing us with 61 days’ prior notice.

Use of proceeds after expenses	We intend to use the proceeds to complete the development and commercialization of Lymphoseek, support the manufacturing process, clinical testing and development of our RIGScan CR product initiative, and for general corporate purposes. See “Use of Proceeds” on Page S-8.
OTC Bulletin Board Symbol	NEOP

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risk factors contained in our most recently filed periodic reports filed with the SEC, including our Annual Report on Form 10-K for the year ended December 31, 2009, as revised or supplemented by our most recent quarterly report on Form 10-Q, each of which are on file with the SEC and are incorporated by reference into this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus or included in any applicable prospectus supplement. Additional risks and uncertainties not presently known to us or that we deem currently immaterial may also impair our business, operating results and financial condition and could result in a complete loss of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the information incorporated by reference in these documents contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We sometimes use words such as "anticipate," "believe," "continue," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," " expressions, as they relate to us, our 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.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $5.5 million after deducting the underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds from

this offering to complete the development and commercialization of Lymphoseek, support the manufacturing process, clinical testing and development of our RIGScan CR product initiative, and for general corporate purposes. As a result, our management with have broad discretion to allocate the net proceeds from this offering.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain our future earnings, if any, for use in our business and therefore do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion.

CAPITALIZATION

The following table sets forth our other cash, total liabilities and capitalization as of June 30, 2010, as follows:

- on an actual basis; and
- on an adjusted basis after giving effect to our sale of 3,157,896 shares of common stock offered hereby at a public offering price of $1.90 per share and after deducting the underwriting discounts and commission of $0.133 per share and estimated offering expenses.

You should read this table along with our historical consolidated financial statements and notes and related notes and the other financial information included and incorporated by reference in this prospectus supplement and the accompanying prospectus.

	June 30, 2010 Actual (Unaudited)	Adjustments (1)	June 30, 2010 Pro Forma
Cash	$ 3,944,782	$ 5,500,000	$ 9,444,782
Total liabilities	5,187,339		5,187,339
Stockholders' equity:			
Preferred stock	11		11
Common stock	82,151	3,158	85,309
Additional paid-in capital	249,007,591	5,496,842	254,504,433
Accumulated deficit	(246,385,404)		(246,385,404)
Total stockholders' equity	2,704,349		8,204,349
Total capitalization	$ 7,891,688		$ 13,391,688

(1) As a result of issuing 3,157,896 shares of common stock as a result of the offering but excluding the potential effect of the additional shares registered but not sold under the Prospectus Supplement to this Registration Statement as such shares registered are: (1) for a secondary offering by selling shareholders; or (2) the sale of an undetermined number and amount of primary shares.

DILUTION

As of June 30, 2010, our unaudited net tangible book value was $2.6 million, or approximately $0.03 per share. Net tangible book value is total assets minus the sum of liabilities and intangible assets. Net tangible book value per share is net tangible book value divided by the total number of shares of common stock outstanding.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of securities in this offering and the net tangible book value per share of our common stock immediately after completion of this offering. For purposes of this calculation, we have allocated the entire purchase price of the securities to the common stock, and nothing to the warrants. After giving effect to the sale of 3,157,896 shares of our common stock and deducting the placement agent commissions and our estimated offering expenses, our net tangible book value as of June 30, 2010 would have been $0.10 per share. This amount represents an immediate increase in net tangible book value of $0.07 per share to existing stockholders and an immediate dilution in net tangible book value of $1.80 per share to purchasers of common stock in this offering, as illustrated in the following table:

Public offering price per share of common stock		$ 1.90
Net tangible book value per share as of June 30, 2010	$ 0.03	
Increase in net tangible book value per share after giving effect to this offering	$ 0.07	
Pro forma net tangible book value per share as of June 30, 2010 after effect to the offering		$ 0.10
Dilution in net tangible book value per share to new investors		$ 1.80

This table assumes no (i) exercise of options to purchase 5,491,167 shares of common stock at a weighted average exercise price of $0.44 per share outstanding as of June 30, 2010, (ii) exercise of warrants to purchase 17,803,333 shares of our common stock at a weighted average exercise price of $0.48 per share, (iii) issuance of 32,700,000 shares of common stock upon conversion of 10,000 shares of Series B Convertible Preferred Stock, (iv) issuance of 3,226,000 shares of common stock upon conversion of 1,000 shares of Series C Convertible Preferred Stock, and (v) issuance of 3,157,896 shares of common stock upon the exercise of warrants to be issued in this offering, at an exercise price of $2.11 per share. To the extent that options or warrants are exercised, or shares are issued upon conversion of convertible preferred stock, there will be further dilution to new investors.

DESCRIPTION OF WARRANTS

The material terms and provisions of the Series CC warrants and Series DD warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to, and qualified in its entirety by, the terms set forth in the Series CC Common Stock Purchase Warrant and Series DD Common Stock Purchase Warrant, respectively, to be filed as exhibits to our Current Report on Form 8-K, which we expect to file with the SEC in connection with this offering.

General

The Series CC warrants are exercisable for one year beginning on the date of issuance, and the Series DD warrants are exercisable for two years beginning on the date of issuance. The warrants will be exercisable, at the option of the holder, upon the surrender of the warrants to us and the payment in cash of the exercise price of the shares of common stock being acquired upon exercise of the warrants. However, if at the time of exercise there is no effective registration statement registering the issuance of the shares of common stock issuable upon exercise of the warrants to the holder and all such shares are not then registered for resale by the holder, the holder may exercise the warrants by means of a “cashless exercise” or “net exercise.” The warrants will not be listed on any national securities exchange.

The exercise price per share of common stock purchasable upon exercise of both the Series CC warrants and the Series DD warrants is $2.11 per share of common stock being purchased. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The holders of the warrants are entitled to 20 days' notice before the record date for certain distributions to holders of our common stock. If certain "fundamental transactions" occur, such as a merger, consolidation, sale of substantially all of our assets, tender offer or exchange offer with respect to our common stock or reclassification of our common stock, the holders of the warrants will be entitled to receive thereafter in lieu of our common stock, the consideration (if different from common stock) that the holders of the warrants would have been entitled to receive upon the occurrence of the "fundamental transaction" as if the warrant had been exercised immediately before the "fundamental transaction." If any holder of common stock is given a choice of consideration to be received in the "fundamental transaction," then the holders of the warrants shall be given the same choice upon the exercise of the warrants following the "fundamental transaction."

As of November 5, 2010, other warrants to purchase approximately 17.9 million shares of common stock are outstanding.

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 articles of incorporation authorize our board of directors to issue 200,000,000 shares of common stock and 5,000,000 shares of preferred stock. As of November 5, 2010, 82,442,371 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 can not be converted into any other kind of stock except in extraordinary transactions, such as mergers and court approved bankruptcy reorganizations.

Preferred Stock

Our certificate of incorporation authorizes our board of directors to issue "blank check" preferred stock. The board of directors may divide this stock into series and set their rights. On December 26, 2007, the board of directors designated 3,000 shares of preferred stock as Series A 8% Cumulative Convertible Preferred Stock (Series A Preferred Stock), which were issued to Montaur on December 5, 2008. On June 22, 2010, the board of directors designated 10,000 shares of preferred stock as Series B Convertible Preferred Stock (Series B Preferred Stock), and 1,000 shares of preferred stock as Series C Convertible Preferred Stock (Series C Preferred Stock). Also, on June 22, 2010: (1) Montaur surrendered the Amended Series A Note 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 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.

PLAN OF DISTRIBUTION

Rodman & Renshaw, LLC (the "placement agent") has acted as our sole placement agent in connection with this offering of 3,157,896 shares of our common stock, Series CC warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series CC warrants), and Series DD warrants to purchase up to 1,578,948 shares of common stock (and the 1,578,948 shares of common stock issuable from time to time upon conversion of the Series DD warrants). The purchase price for each share of common stock and a warrant to purchase one share of common stock is $1.90.

The placement agent will be working solely on a “reasonable best efforts” basis and is not purchasing or selling any securities offered by this prospectus supplement or the accompanying prospectus, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities. Therefore, we may not sell the entire amount of common stock and warrants offered pursuant to this prospectus supplement.

We currently anticipate that closing of the sale of the common stock and warrants will occur on or about November 10, 2010, subject to customary closing conditions. On the closing date, the following will occur:

- We will receive funds in the amount of the aggregate purchase price of the common stock and warrants.
- The placement agent will receive the placement agent fees in accordance with the terms of the letter agreement.
- We will irrevocably instruct the transfer agent to deliver the shares of common stock, and we will deliver the warrants, to the Initial Purchasers.

On November 7, 2010, we enter entered into a letter agreement with the placement agent to serve as exclusive placement agent for purchasers of our securities for a period of 30 days. Pursuant to the letter agreement, we will pay the placement agent at closing a cash fee equal to 7% of the aggregate gross proceeds raised in this offering, plus warrants to purchase shares of common stock in an amount equal to 5% of the aggregate number of shares of common stock sold in the offering. Assuming all of the common stock and warrants offered by the prospectus supplement are issued and sold by us, we will pay the placement agent $0.133 per share, or $420,000 in the aggregate, and warrants to purchase up to 157,895 shares of common stock. The warrants issued to the placement agent will have the same terms as the warrants issued to the Initial Purchasers except that the warrant issued to the placement agent will have an exercise price of $2.375 per share (125% of the public offering price) and an expiration date of August 9, 2015 (the five year anniversary of the effective date of the registration statement).

The following table shows the per share and total fees we will pay to the placement agent in connection with the sale of our securities offered pursuant to this prospectus supplement and the accompanying prospectus, assuming the purchase of all of the securities offered hereby and excluding proceeds that we may receive upon exercise of the warrants:

Per Share Placement Agent Fee	$ 0.133
Total Placement Agent Fees	$ 420,000

Because there is no minimum offering amount required as a condition to closing, the actual total may be less than the total set forth above.

The estimated offering expenses payable by us, excluding the placement agency fee, are $80,000, which include legal, accounting and printing costs, and various other fees associated with registering the shares of common stock issuable from time to time upon exercise of the warrants.

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act. We may also be required to contribute to payments the placement agent may be required to make in respect of such liabilities.

The agreement with the placement agent and the purchase agreement with the Initial Purchasers will be included as exhibits to a Current Report on Form 8-K that will be filed with the SEC in connection with this offering.

We are subject to a lock-up agreement for a period of 30 days following the date of this prospectus supplement. Pursuant to the lock-up agreement, we have agreed that neither we nor any subsidiary will, without the prior consent of the Initial Purchasers, issue or enter into any agreement to issue or announce the issuance or proposed issuance of any of our common stock or any other of our or our subsidiaries' securities, including debt, preferred stock, rights, options, warrants or other instruments that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

In addition, from the date of issuance until such time as no Purchaser holds any of the Series CC warrants or Series DD warrants, we are prohibited from effecting or entering into any agreement to effect any issuance by us or our subsidiaries of our or our subsidiaries' securities involving a variable rate transaction. Variable rate transactions mean transactions in which we (i) issue or sell any debt or equity securities that are convertible into, exchangeable or

exercisable for, or include the right to receive additional shares of our common stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of our common stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security (but not including customary anti-dilution provisions) or upon the occurrence of specified or contingent events directly or indirectly related to the business of our Company or the market for our Common Stock, or (ii) enter into any arrangement, including but not limited to, an equity line of credit, whereby we may sell securities at a future determined price.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

All purchasers of common stock and warrants are advised to consult their own tax advisors regarding the federal, state, local and foreign tax consequences of the purchase, ownership, or exercise, as the case may be, and disposition of the common stock and warrants and the ownership and disposition of shares of common stock issuable upon exercise of warrants in their particular situations.

LEGAL MATTERS

Certain legal matters will be passed upon for us by Porter Wright Morris & Arthur LLP, Columbus, Ohio.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act of 1933, as amended, and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document.

Because we are subject to the information and reporting requirements of the Securities Exchange Act of 1934, as amended, we file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's web site at http://www.sec.gov. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

INCORPORATION BY REFERENCE

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, 2009, filed with the Commission on March 31, 2010;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2010, filed with the Commission on May 14, 2010, and June 30, 2010, filed with the Commission on August 10, 2010;
- our Current Reports on Form 8-K, dated January 11, 2010 (filed January 11, 2010), dated January 26, 2010 (filed January 28, 2010), dated February 24, 2010 (filed February 26, 2010), dated March 11, 2010 (filed March 12, 2010), dated May 26, 2010 (filed May 27, 2010), dated June 22, 2010 (filed June 28, 2010), dated July 16, 2010 (filed July 20, 2010) and dated October 6, 2010 (filed October 6, 2010); and

S-14

- 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

PROSPECTUS
NEOPROBE CORPORATION

$20,000,000

Common Stock
Common Stock Warrants
Units

15,000,000 Shares of Common Stock
Offered by Selling Stockholders

- We may offer from time to time to sell, separately or together as units: (1) shares of our common stock; and (2) warrants to purchase our common stock. The aggregate offering price of shares of common stock and warrants to purchase common stock sold by us under this prospectus will not exceed $20,000,000. In addition, this prospectus covers resales of 15,000,000 shares our common stock owned by Platinum-Montaur Life Sciences, LLC and its transferees, in the circumstances we describe (the "selling stockholder"). We will not receive any proceeds from the sale, if any, of common stock by the selling stockholder.
- 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 August 2, 2010 was $2.01 per share.
- Trading symbol: OTC Bulletin Board – NEOP.

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 4, 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 August 9, 2010

TABLE OF CONTENTS

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 in one or more offerings up to a total dollar amount of $20,000,000. This prospectus also relates to the offer and sale from time to time of up to 15,000,000 shares of our common stock in one or more offerings by the selling stockholder 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. In addition to our medical device products, we have two radiopharmaceutical products, Lymphoseek® and RIGScanTM 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 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. 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.

2

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 $195 million and had an overall deficit in stockholders' equity as of March 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 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, and because of the significant non-cash losses we have recognized related to accounting for certain of the complex financial instruments we have issued in recent years to fund our business. 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 CR, are still in the process of development, and even if we are successful in commercializing them, we cannot assure you that they will obtain significant market acceptance.

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

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

3

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. Depending on market conditions and/or changes in our business plans, we may raise capital in coming quarters under this registration statement or we may consider other funding vehicles. The continuation of the depressed worldwide financial conditions and stock market valuations may adversely affect our ability to raise additional capital, either under facilities in place or from new sources of capital. If we are unsuccessful in raising additional capital, closing on financing under already agreed to terms, or the terms of raising such capital are unacceptable, we may have to modify our business plan and/or significantly curtail our planned development activities and other operations.

In December 2006, we entered into a common stock purchase agreement with Fusion Capital, an Illinois limited liability company, to sell $6.0 million of our common stock over a 24-month period which ended on November 21, 2008. Through November 21, 2008, we sold to Fusion Capital under the agreement 7,568,671 shares for proceeds of $1.9 million. In December 2008, we entered into an amendment to the agreement which gave us a right to sell an additional $6.0 million of our common stock to Fusion Capital before March 1, 2011, along with the $4.1 million of the unsold balance of the $6.0 million we originally had the right to sell to Fusion Capital under the original agreement. In March 2010, we sold to Fusion Capital under the amended agreement 540,541 shares for proceeds of $1.0 million. Subsequent to this sale, the remaining aggregate amount of our common stock we can sell to Fusion Capital is $9.1 million, and we have reserved a total of 10,113,459 shares of our common stock for sale under the amended agreement. Our right to make sales under the amended agreement is limited to $50,000 every two business days, unless our stock price equals or exceeds $0.30 per share, in which case we can sell greater amounts to Fusion Capital as the price of our common stock increases. Fusion Capital does not have the right or any obligation to purchase any shares on any business day that the market price of our common stock is less than $0.20 per share. Assuming all 10,113,459 shares are sold, the selling price per share would have to average approximately $0.90 for us to receive the full $9.1 million remaining proceeds under the agreement as amended. Assuming we sell to Fusion Capital all 10,113,459 shares at a sale price of $2.09 per share (the closing sale price of the common stock on July 30, 2010), we would receive the full remaining $9.1 million under the agreement. Under the agreement, we have the right but not the obligation to sell more than the 10,113,459 shares to Fusion Capital. As of the date hereof, we do not currently have any plans or intent to sell to Fusion Capital any shares beyond the 10,113,459 shares. However, if we elect to sell more than the 10,113,459 shares, we must first register any additional shares we may elect to sell to Fusion Capital under the Securities Act before we can sell such additional shares.

The extent to which we rely on Fusion Capital as a source of funding will depend on a number of factors, including the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources, such as through the sale of our products. To the extent that we are unable to make sales to Fusion Capital to meet our capital needs, or to the extent that we decide not to make such sales because of excessive dilution or other reasons, and if we are unable to generate sufficient revenues from sales of our products, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we are able to access the full $9.1 million potentially remaining under the agreement with Fusion Capital, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

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

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

radiopharmaceutical product candidate, Lymphoseek. We began enrolling clinical subjects in a second Phase 3 trial for Lymphoseek in patients with head and neck squamous cell carcinoma in the third quarter of 2009 and in a third Phase 3 trial in subjects with breast cancer and melanoma in the third quarter of 2010. While neither the second or third trials are required to be completed in order to file our new drug application (NDA) for Lymphoseek, these trials are intended to contribute additional data for safety evaluation purposes and to support expanded post-marketing product labeling for Lymphoseek. In late 2008, we obtained approval from the European Medicines Agency (EMEA) for a Phase 3 clinical protocol for our next radiopharmaceutical candidate, RIGScan CR, and we are preparing to approach FDA to obtain similar clearance. Historically, the results from preclinical testing and early clinical trials have often not been predictive of results obtained in later clinical trials. Frequently, drugs that have shown promising results in preclinical or early clinical trials subsequently fail to establish sufficient safety and efficacy data necessary to obtain regulatory approval. At any time during the clinical trials, we, the participating institutions, FDA or EMEA might delay or halt any clinical trials for our product candidates for various reasons, including:

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

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, 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 our product candidates depends, in large part, upon the formation of collaborative arrangements. Collaborations may allow us to:

- generate cash flow and revenue;
- offset some of the costs associated with our internal research and development, preclinical testing, clinical trials and manufacturing;
- seek and obtain regulatory approvals faster than we could on our own; and
- successfully commercialize existing and future product candidates.

We 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 CR or ACT. We cannot assure you that we will be successful in securing collaborative partners for other markets or radiopharmaceutical products, or that we will be able to negotiate acceptable terms for such arrangements. The development, regulatory approval and commercialization of our product candidates will depend substantially on the efforts of collaborative partners, and if we fail to secure or maintain successful collaborative arrangements, or if our partners fail to perform their obligations, our development, regulatory, manufacturing and marketing activities may be delayed, scaled back or suspended.

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

We currently distribute our gamma detection devices in most global markets through 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. For the past ten years, our primary marketing and distribution partner for our gamma detection devices has been Ethicon Endo-Surgery, Inc. (EES), a Johnson & Johnson company. Recently, EES sold its breast care franchise, the group that is responsible for selling our gamma detection devices, to Devicor Medical Products, Inc. (Devicor). While we believe that Devicor as our distribution partner intends to continue to aggressively market our products, we cannot assure you that the distribution partner 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
- 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 existing products are highly regulated and we could face severe problems if we do not comply with all regulatory requirements in the global markets in which these products are sold.

FDA regulates our gamma detection 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 rely on independent contract manufacturers for the manufacture of our current neoprobe GDS line of gamma detection systems. 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 for our gamma detection devices contains failure to supply provisions, which, if triggered, could have a significant negative impact on our business.

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

We do not have our own manufacturing facility for the manufacture of the radiopharmaceutical compounds necessary for clinical testing or commercial sale. We intend to rely 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 completed a supply agreement with Reliable Biopharmaceuticals covering the manufacturing of the active pharmaceutical ingredient in Lymphoseek and we are in the process of finalizing supply contracts with another third-party manufacturer for the lyophoization, vialing and filling of the finished 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, health reform legislation was approved by Congress and has been signed into law. The reform 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 was recently enacted and will require the adoption of implementing regulations, 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 our common stock to Fusion may cause dilution and the sale of common stock acquired by Fusion could cause the price of our common stock to decline.

In connection with our agreement with Fusion Capital, we have authorized the sale of up to 18,222,671 shares of our common stock and the issuance of 1,800,000 shares in commitment fees, and we have filed a registration statement with the SEC for the sale to the public of 11,500,000 shares issuable to Fusion Capital pursuant to the agreement. Through July 30, 2010, we have sold Fusion Capital 8,109,212 shares of common stock and issued 1,434,000 shares of stock as commitment fees to Fusion Capital. The number of shares ultimately offered for sale to the public will be dependent upon the number of shares purchased by Fusion Capital under the agreement. It is anticipated that these shares will be sold over a period of up to 26 months from the date of the December 24, 2008 amendment to the agreement, at prices that will fluctuate based on changes in the market price of our common stock over that period. Depending upon market liquidity at the times sales are made, these sales could cause the market price of our common stock to decline. Consequently, sales to Fusion Capital may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock by Fusion Capital, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. However, we have the right to control the timing and amount of any sales of our shares to Fusion Capital and the agreement may be terminated by us at any time at our discretion without any cost to us.

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

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. 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.

As required by our financing arrangements with Fusion Capital, we have filed a registration statement registering for resale a total of 11,500,000 common shares, consisting of (i) 10,654,000 shares which we may sell to Fusion Capital pursuant to the amended common stock purchase agreement, (ii) 360,000 shares issued to Fusion Capital in consideration for its agreement to the amendment; and (iii) 486,000 commitment fee shares to be issued pro rata as we sell the first $4.1 million of common stock under the amended agreement. The number of shares ultimately sold under the registration statement will be dependent upon the number of shares purchased by Fusion Capital under the amended agreement. It is anticipated that these shares will be sold from time to time over a period ending on March 1, 2011, at prices that will fluctuate based on changes in the market price of our common stock over that period. We have the right to control the timing and amount of any sales of our shares to Fusion Capital and the agreement may be terminated by us at any time at our discretion without any cost to us.

On December 26, 2007, we entered into a Securities Purchase Agreement (SPA) with Platinum-Montaur Life Sciences, LLC (Montaur), pursuant to which we issued Montaur a 10% Series A Convertible Senior Secured Promissory Note in the principal amount of $7,000,000, due December 26, 2011 (the Series A Note) and a five-year Series W Warrant to purchase 6,000,000 shares of our common stock at an exercise price of $0.32 per share. On April 16, 2008, following receipt by the Company of clearance by the FDA to commence a Phase 3 clinical trial for Lymphoseek in patients with breast cancer or melanoma, we amended the SPA and issued Montaur a 10% Series B Convertible Senior Secured Promissory Note in the principal amount of $3,000,000, also due December 26, 2011 (the Series B Note, and hereinafter referred to collectively with the Series A Note as the Montaur Notes), and a five-year Series X Warrant to purchase 8,333,333 shares of our common stock at an exercise price of $0.46 per share. On December 5, 2008, after the Company had obtained 135 vital blue dye lymph nodes from patients who had completed surgery and the injection of the drug in the 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 (hereinafter referred to collectively with the Series W Warrant and Series X Warrant as the Montaur Warrants) to purchase 6,000,000 shares of our common stock, at an exercise price of $0.575 per share, also for an aggregate purchase price of $3,000,000. On July 24, 2009, we entered into a Securities Amendment and Exchange Agreement (Amendment Agreement) with Montaur, pursuant to which Montaur agreed to the amendment and restatement of the terms of the Montaur Notes, the Montaur Warrants and the Preferred Stock, to remove price-based anti-dilution adjustment provisions that had created a significant non-cash derivative liability on the Company's balance sheet, and upon the surrender of the Montaur Notes and the Montaur Warrants we issued Montaur an Amended and Restated 10% Series A Convertible Senior Secured Promissory Note in the principal amount of $7,000,000, due December 26, 2011 (the Amended Series A Note), an Amended and Restated 10% Series B Convertible Senior Secured Promissory Note in the principal amount of $3,000,000, due December 26, 2011 (the Amended Series B Note, and together with the Amended Series A Note the Amended Montaur Notes), an Amended and Restated Series W Warrant (the Amended Series W Warrant), an Amended and Restated Series X Warrant (the Amended Series X Warrant), an Amended and Restated Series Y Warrant (the Amended Series Y Warrant), and in consideration for the agreement of Montaur to enter into the Amendment Agreement, a Series AA Warrant to purchase 2,400,000 shares of our common stock at an exercise price of $0.97 per share (the Series AA Warrant, and together with the Amended Series W Warrant, Amended Series X Warrant and Amended Series Y Warrant, the Amended Montaur Warrants). On June 22, 2010, we entered into a Securities Exchange Agreement (the Exchange Agreement) with Montaur, pursuant to which Montaur delivered to the Company for cancellation and retirement: (1) the Amended Montaur Notes; and (2) the Series A Preferred Stock, in exchange for 10,000 shares of our Series B Convertible Preferred Stock (Series B Preferred Stock). Pursuant to the provisions of the Certificate of Designations, Voting Powers, Preferences, Limitations, Restrictions, and Relative Rights of the Series B Convertible Preferred Stock, Montaur may convert all or any portion of the shares of the Series B Preferred Stock into an aggregate 32,700,000 shares of our common stock, subject to adjustment as described in the Certificate of Designations.

Montaur may sell none, some or all of the shares of common stock acquired from us, as well as common stock acquired on the exercise of the warrants and convertible securities held by them. We have no way of knowing whether or when Montaur 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 and better-established competitors.

The medical device and biotechnology industries are intensely competitive. Some of our competitors have significantly greater financial, technical, manufacturing, marketing and distribution resources as well as greater experience in the medical device industry than we have. The particular medical conditions our product lines address can also be addressed by other medical devices, procedures or drugs. Many of these alternatives are widely accepted

by physicians and have a long history of use. Physicians may use our competitors' products and/or our products may not be competitive with other technologies. If these things happen, our sales and revenues will decline. In addition, our current and potential competitors may establish cooperative relationships with large medical equipment companies to gain access to greater research and development or marketing resources. Competition may result in price reductions, reduced gross margins and loss of market share.

Our products may be displaced by newer technology.

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

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

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

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

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

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

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

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

We could be damaged by product liability claims.

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

11

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

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

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

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

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

Our common stock traded as low as $0.95 per share and as high as $2.30 per share during the 12-month period ended July 31, 2010. 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.

12

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

- price and volume fluctuations in the stock market at large which do not relate to our operating performance;
- financing arrangements we may enter that require the issuance of a significant number of shares in relation to the number of shares currently outstanding;
- public concern as to the safety of products that we or others develop; and
- fluctuations in market demand for and supply of our products.

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

Generally, the trading volume for our common stock has been relatively limited. A consistently active trading market for our common stock may not occur on the OTCBB. The average daily trading volume for our common stock on the OTCBB for the 12-month period ended July 31, 2010 was approximately 125,000 shares.

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

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

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

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

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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 "project," "should," "will" and similar expressions, as they relate to us, our 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;

13

- 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.

CAPITALIZATION

The following table sets forth our other long-term assets, debt and capitalization as of March 31, 2010, as follows:

- on an actual basis; and
- on a pro forma basis to give effect to the exchange of the Montaur Notes and the Series A Preferred Stock for Series B Preferred Stock, and the exchange of the Amended 10% Convertible Note in the principal amount of $1,000,000, due December 31, 2011, executed by the Company in favor of David C. Bupp, our President and CEO, and certain members of his family (the Bupp Note), for Series C Preferred Stock.

The table does not include the effect of the shares registered in this Registration Statement as the shares registered are: (1) for a secondary offering by selling shareholders; and (2) the sale of an undetermined number and amount of primary shares.

	March 31, 2010 Actual (Unaudited)	Adjustments	March 31, 2010 Pro Forma
Other assets	22,534	(13,061) (1)	9,473
Current liabilities	3,422,520	-	3,422,520
Long-term liabilities	13,882,180	(11,923,791) (1)(2)(3)	1,958,389
Preferred stock	3,000,000	(3,000,000) (2)	-
Stockholders' (deficit) equity:			
Preferred stock	-	11(1)(2)(3)	11
Common stock	81,892		81,892
Additional paid-in capital	184,096,762	64,666,789(1)(2)(3)	248,763,551
Accumulated deficit	(195,218,800)	(49,756,070) (1)(2)(3)	(244,974,870)
Total stockholders' (deficit) equity	(11,040,146)	14,910,730	3,870,584
Total capitalization	$ 9,264,554		$ 9,251,493

14

(1) As a result of exchanging the Montaur Notes for Series B Preferred Stock, the Company decreased other assets by $13,061 and long-term liabilities by $10,750,000, and increased preferred stock by $8 and additional paid-in capital by $47,605,302. The Company also increased accumulated deficit by recognizing a loss on the extinguishment of the Montaur Notes of $36,868,371.
(2) As a result of exchanging the Series A Preferred Stock for Series B Preferred Stock, the Company decreased mezzanine preferred stock by $3,000,000 and long-term liabilities by $216,000, and increased preferred stock by $2 and additional paid-in capital by $11,254,688. The Company also increased accumulated deficit by recognizing a deemed dividend on the Series A Preferred Stock of $8,038,690.
(3) As a result of exchanging the Bupp Note for Series C Preferred Stock, the Company decreased long-term liabilities by $957,791 and increased preferred stock by $1 and additional paid-in capital by $5,806,799. The Company also increased accumulated deficit by recognizing a loss on the extinguishment of the Bupp Note of $4,849,009.

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, 2009, filed with the Commission on March 31, 2010;

- our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2010, filed with the Commission on May 14, 2010;

- our Current Reports on Form 8-K, dated January 11, 2010 (filed January 11, 2010), dated January 26, 2010 (filed January 28, 2010), dated February 24, 2010 (filed February 26, 2010), dated March 11, 2010 (filed March 12, 2010), dated May 26, 2010 (filed May 27, 2010), dated June 22, 2010 (filed June 28, 2010) and dated July 16, 2010 (filed July 20, 2010); 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 or redemption of existing indebtedness and financing capital expenditures and 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 articles of incorporation authorize our board of directors to issue 200,000,000 shares of common stock and 5,000,000 shares of preferred stock. As of July 31, 2010, 82,280,755 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.

16

Preemptive Rights

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

Redemption Rights

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

Conversion Rights

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

Preferred Stock

Our certificate of incorporation authorizes our board of directors to issue "blank check" preferred stock. The board of directors may divide this stock into series and set their rights. On December 26, 2007, the board of directors designated 3,000 shares of preferred stock as 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 (Series B Preferred Stock), and 1,000 shares of preferred stock as Series C Convertible Preferred Stock (Series C Preferred Stock). Also, on June 22, 2010: (1) Montaur surrendered the Amended Series A Note 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 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 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 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 eight directors, two in one class and three in each of two additional classes. At each annual meeting of stockholders, the terms of one class of directors will expire and the newly nominated directors of that class will be elected for a term of three years. The board of directors will be able to determine the total number of directors constituting the full board of directors and the number of directors in each class, but the total number of directors may not exceed 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 stockholder may sell shares of our common stock. These shares may be acquired by the selling stockholder 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 stockholder may also sell shares of common stock that were issued to them 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 stockholder” will refer to the selling stockholder 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)	7,671,621	9.3%	15,000,000	9.3%

(1) The ownership percentages listed in these columns include only shares beneficially owned by the listed selling stockholder. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In computing the percentage of shares beneficially owned by a selling stockholder, shares of common stock subject to warrants or preferred stock convertible into common stock held by that selling stockholder that were exercisable on or within 60 days after August 2, 2010, were deemed outstanding for the purpose of computing the percentage ownership of that selling stockholder. The ownership percentages are calculated assuming that 82,280,755 shares of common stock were outstanding on August 2, 2010. Of the 7,671,621 shares set forth in the table above, 7,463,985 are held by Platinum Partners Value Arbitrage Fund, LP, a Cayman Island exempt partnership (“PPVAF”). PPVAF’s address is 152 West 57th Street, 54th 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, 54th 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 4.99% or 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 hold 7,671,621 shares of our common stock.

(3) Marc Nordlicht has the voting and dispositive power over the shares to be sold in the offering. Mr. Nordlicht disclaims beneficial ownership of such shares except to the extent of his 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

21

- 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, 2009 and 2008 and for each of the years then ended incorporated by reference in this Prospectus have been so incorporated in reliance on the report of BDO Seidman, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

Neoprobe Corporation

3,157,896 Shares of Common Stock
Series CC Warrants to Purchase 1,578,948 Shares of Common Stock
Series DD Warrants to Purchase 1,578,948 Shares of Common Stock

Prospectus Supplement

November 7, 2010
