
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 2 TO

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

NEOPROBE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2835
(Primary standard industrial
Classification number)

31-1080091
(IRS employer
identification number)

425 Metro Place North, Suite 300
Dublin, Ohio 43017-1367
(614) 793-7500
(Address and telephone number of principal executive offices)

425 Metro Place North, Suite 300
Dublin, Ohio 43017-1367
(Address of principal place of business)

Brent L. Larson, Vice President, Finance and Chief Financial Officer
Neoprobe Corporation
425 Metro Place North, Suite 300
Dublin, Ohio 43017-1367
(614) 793-7500
(Name, address and telephone number of agent for service)

Copies to:

William J. Kelly, Jr., Esq.
Porter, Wright, Morris & Arthur LLP
41 South High Street
Columbus, Ohio 43215
Telephone No. (614) 227-2136
wjkelly@porterwright.com

Approximate date of commencement of proposed sale to the public: Not Applicable

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

EXPLANATORY NOTE

Deregistration of Securities

We originally registered 20,166,666 shares of our common stock pursuant to a Registration Statement on Form S-1 (File No. 333-150650) filed with the Securities and Exchange Commission (the "SEC") on May 5, 2008, as most recently amended January 7, 2009, and subsequently declared effective by the SEC on January 9, 2009 (the "Registration Statement"). The Registration Statement related to the sale of shares of our common stock by Platinum-Montaur Life Sciences, LLC, named therein as the "selling stockholder," upon the purchase of shares of our common stock through the conversion of promissory notes and shares of preferred stock, or the exercise of warrants.

We have filed this Post-effective Amendment No. 2 to the Registration Statement solely for the purpose of fulfilling the Company's obligation under Item 512(a)(3) of Regulation S-K promulgated under the Securities Act of 1933, as amended, which requires that the Company remove from registration by means of a post-effective amendment any of the securities originally registered by the Registration Statement that remained unsold at the termination of the offering. The offering related to the Registration Statement terminated upon the selling stockholder's surrender to us of the promissory notes and warrants pursuant to a Securities Amendment and Exchange Agreement. Pursuant to this Post-effective Amendment No. 2 to the Registration Statement, we are seeking to deregister 20,097,216 shares of our common stock that were registered pursuant to the Registration Statement and not sold prior to the termination of the offering. Therefore, in accordance with our undertaking contained in Part II of the Registration Statement, we hereby respectfully request that the Securities and Exchange Commission remove from registration those shares of common stock that were registered pursuant to the Registration Statement and remain unsold thereunder. The Registration Statement is hereby amended, as appropriate, to reflect the deregistration of such shares.

Item 27. Exhibits.

Exhibit
Number

Exhibit Description

24	Power of Attorney (incorporated by reference to Exhibit 24.1 to the Company's Registration Statement on Form S-1, filed May 5, 2008, Registration file No. 333-150650, with the exception of the Power of Attorney for Mr. Troup, which is incorporated by reference to Exhibit 24.1 to pre-effective amendment No. 3 to the Company's Registration Statement on Form S-1, filed August 11, 2008, file No. 333-150650).
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Signatures

In accordance with the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-1 and has authorized this Post-effective Amendment No. 2 to its Registration Statement to be signed on its behalf by the undersigned in the City of Dublin, Ohio, on December 22, 2009.

Neoprobe Corporation

By: /s/ Brent L. Larson

Brent L. Larson, Vice President, Finance
and Chief Financial Officer

In accordance with the requirements of the Securities Act of 1933, this registration statement was signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David C. Bupp*</u> David C. Bupp	President, Chief Executive Officer and Director (principal executive officer)	December 22, 2009
<u>/s/ Brent L. Larson</u> Brent L. Larson	Vice President, Finance and Chief Financial Officer (principal financial officer and principal accounting officer)	December 22, 2009
<u>/s/ Carl J. Aschinger, Jr.*</u> Carl J. Aschinger, Jr.	Chairman of the Board of Directors	December 22, 2009
<u>/s/ Reuven Avital*</u> Reuven Avital	Director	December 22, 2009
<u>/s/ Kirby I. Bland*</u> Kirby I. Bland	Director	December 22, 2009
<u>/s/ Owen E. Johnson*</u> Owen E. Johnson	Director	December 22, 2009
<u>/s/ Fred B. Miller*</u> Fred B. Miller	Director	December 22, 2009
<u>/s/ Gordon A. Troup*</u> Gordon A. Troup	Director	December 22, 2009
<u>/s/ J. Frank Whitley, Jr.*</u> J. Frank Whitley, Jr.	Director	December 22, 2009

*By: /s/ Brent L. Larson
Brent L. Larson, Attorney-in fact