
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

NeuroMetrix, Inc.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

3841

*(Primary Standard Industrial
Classification Code Number)*

04-3308180

*(I.R.S. Employer
Identification No.)*

**62 Fourth Avenue
Waltham, Massachusetts 02451
(781) 890-9989**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Shai N. Gozani, M.D., Ph.D.
Chief Executive Officer**

NeuroMetrix, Inc.
62 Fourth Avenue
Waltham, Massachusetts 02451
(781) 890-9989

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:

Jonathan L. Kravetz, Esq.
Megan N. Gates, Esq.
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111
Telephone: (617) 542-6000
Fax: (617) 542-2241

Kyle Guse, Esq.
Baker Botts, LLP
620 Hansen Way
Palo Alto, CA 94304
Telephone: (650) 739-7555
Fax: (650) 739-7655

Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement becomes effective.

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

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. **x 333-178165**

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, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☐
(Do not check if a smaller reporting company)

Smaller reporting company ☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered(1)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(3)
Units consisting of Common Stock and Warrants	\$ —	\$ —
Common Stock Underlying Units(4)(5)	—	—
Warrants Underlying Units(5)	—	—
Common stock issuable upon exercise of Warrants in the Units(4)	787,500	90.25
Warrants issued to Placement Agent(5)	—	—
Common stock issuable upon exercise of placement agent warrants(4)	—	—
Total	\$ 787,500	\$ 90.25

- (1) The securities registered also include such indeterminate amounts and numbers of shares of common stock issuable to cover additional securities that may be offered or issued to prevent dilution resulting stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933.

- (3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price. An aggregate amount of \$16,406,250 was registered under Registration Statement No. 333-178165, in connection with which a filing fee of \$1,880.16 has been paid.
- (4) Pursuant to a shareholder rights agreement, dated as of March 7, 2007, between the Company and American Stock Transfer & Trust Company, as amended, each share of common stock has an attached right to purchase our Series A Junior Cumulative Preferred Stock, which rights are not currently exercisable.
- (5) No fee required pursuant to Rule 457 under the Securities Act of 1933.

THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE UPON FILING WITH THE COMMISSION IN ACCORDANCE WITH RULE 462(b) UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

**EXPLANATORY NOTE AND
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

This Registration Statement on Form S-1 is being filed with respect to the registration of additional securities of NeuroMetrix, Inc., a Delaware corporation, pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This Registration Statement includes the registration statement facing page, this page, the signature pages, an exhibit index, an opinion of counsel regarding the legality of the securities being registered and a related consent and accountant's consent. This Registration Statement relates to the Registrant's Registration Statement on Form S-1 (Registration No. 333-178165), initially filed by the Registrant on November 23, 2011, as subsequently amended on January 13, 2012 and January 31, 2012 and declared effective by the Securities and Exchange Commission on February 7, 2012. The Registrant is filing this Registration Statement for the sole purpose of increasing the proposed maximum aggregate offering price of shares of common stock underlying warrants to be issued in such offering by \$787,500. Pursuant to Rule 462(b), the contents of the Registration Statement on Form S-1 (Registration No. 333-178165), including the exhibits and the power of attorney thereto, are incorporated by reference into this Registration Statement.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits and Financial Statement Schedules.

All exhibits filed with or incorporated by reference in the Registration Statement on Form S-1 (Registration No. 333-178165) are incorporated by reference into, and shall be deemed a part of, this Registration Statement, and the following additional exhibits are filed herewith:

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Registrant, with respect to the legality of the securities being registered.
23.1	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm.
23.2	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1).
24.1	Power of Attorney (incorporated by reference to the Registration Statement on Form S-1 of the Registrant, Registration No. 333-178165).

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on February 7, 2012.

NEUROMETRIX, INC.

By: /s/ Shai N. Gozani, M.D., Ph.D.
Shai N. Gozani, M.D., Ph.D.
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
By: <u>/s/ Shai N. Gozani, M.D., Ph.D.</u> Shai N. Gozani, M.D., Ph.D.	Chairman, President and Chief Executive Officer (Principal Executive Officer)	February 7, 2012
By: <u>/s/ Thomas T. Higgins</u> Thomas T. Higgins	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	February 7, 2012
By: <u>*</u> David E. Goodman, M.D.	Director	February 7, 2012
By: <u>*</u> Allen J. Hinkle M.D.	Director	February 7, 2012
By: <u>*</u> Nancy E. Katz	Director	February 7, 2012
By: <u>*</u> Charles R. LaMantia	Director	February 7, 2012
By: <u>*</u> Timothy R. Surgenor	Director	February 7, 2012
*By: <u>/s/ Thomas T. Higgins</u> Thomas T. Higgins, Attorney-in-fact		February 7, 2012

EXHIBIT INDEX

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One Financial Center
Boston, MA 02111
617-542-6000
617-542-2241 fax
www.mintz.com

February 7, 2012

NeuroMetrix, Inc.
62 Fourth Avenue
Waltham, Massachusetts 02451

Ladies and Gentlemen:

We have acted as counsel to NeuroMetrix, Inc., a Delaware corporation (the “Company”), in connection with the preparation and filing with the Securities and Exchange Commission (the “Commission”) of (i) a Registration Statement on Form S-1 (Registration No. 333-178165) (the “Initial Registration Statement”), and (ii) a Registration Statement on Form S-1 to be filed pursuant to Rule 462(b) promulgated under the Securities Act of 1933, as amended (the “Securities Act”) (the “462(b) Registration Statement,” and together with the Initial Registration Statement, the “Registration Statements”). This opinion is furnished to you in connection with the filing of the 462(b) Registration Statement with the Securities and Exchange Commission (the “Commission”) under the Securities Act in which the Company is registering the offer and sale of up to an aggregate of 684,783 shares of the Company’s common stock, \$0.0001 par value per share (the “Common Stock”), underlying the warrants (the “Warrants”) to purchase one half of a share of Common Stock. The Warrants are being offered and sold pursuant to an Engagement Letter Agreement dated December 30, 2011 between the Company and Dawson James Securities Inc. (the “Engagement Letter Agreement”), which Engagement Letter Agreement, together with the form of the Warrant, were filed as exhibits to the Initial Registration Statement. The shares of Common Stock to be issued by the Company upon the exercise of the Warrants are hereinafter collectively referred to as the “Warrant Shares”. The Warrant Shares also include share purchase rights (the “Share Purchase Rights”) under the Company’s Shareholder Rights Agreement dated March 7, 2007, as amended, between the Company and American Stock Transfer & Trust Company, as Rights Agent (the “Shareholder Rights Agreement”) that may be issued at a future date in accordance with the terms of the Shareholder Rights Agreement.

In connection with this opinion, we have examined the Company’s Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws, both as currently in effect; the Shareholder Rights Agreement; the minutes of all pertinent meetings of the directors of the Company relating to the Registration Statements, the Engagement Letter Agreement and the transactions contemplated thereby; such other records of the corporate proceedings of the Company and certificates of the Company’s officers as we have deemed relevant; and the Registration Statements and the exhibits thereto.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

BOSTON | WASHINGTON | NEW YORK | STAMFORD | LOS ANGELES | PALO ALTO | SAN DIEGO | LONDON

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Based upon the foregoing, and subject to the limitations set forth below, we are of the opinion that (i) the Warrants, when issued and delivered by the Company against payment therefor, will be duly and validly issued, and will represent binding obligations of the Company pursuant to the laws of the State of Delaware; (ii) the Warrant Shares, when issued and delivered by the Company against payment therefor as contemplated by the Warrants, will be duly and validly issued, fully paid and non-assessable; and (iii) the Share Purchase Rights will be duly and validly issued.

In rendering our opinion regarding the Share Purchase Rights, we have assumed that the Board of Directors of the Company has acted and will act in accordance with its fiduciary duties with respect to the administration of the Shareholder Rights Agreement and the issuance of the Share Purchase Rights thereunder. In connection with the foregoing, our opinion does not address the determination a court of competent jurisdiction may make regarding whether the Board of Directors of the Company would be required to redeem or terminate, or take other action with respect to, the Share Purchase Rights at some future time. Further, our opinion addresses the Shareholder Rights Agreement and the Share Purchase Rights in their entirety and not any particular provision of them, and it is not settled whether the invalidity of any particular provision would invalidate the Share Purchase Rights in their entirety.

Our opinion is limited to the General Corporation Law of the State of Delaware (including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting such laws) and the United States Federal Laws, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction. To the extent that any applicable document is stated to be governed by the laws of another jurisdiction, we have assumed for purposes of this opinion that the laws of such jurisdiction are identical to the state laws of the State of Delaware.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon statutes, rules, regulations and judicial decisions existing on the date hereof, and we disclaim any obligation to advise you of any change in any of these sources of law or legal or factual developments after the date hereof which might affect any matters or opinions set forth herein.

February 7, 2012

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We hereby consent to the filing of this opinion with the Commission as an exhibit to the 462(b) Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K promulgated under the Securities Act and to the use of this Firm's name therein and in the related prospectus under the caption "Legal Matters." In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated March 7, 2011 relating to the financial statements and financial statement schedule of NeuroMetrix, Inc. (the “Company”), which appears in the Company's Annual Report on Form 10-K for the year ended December 31, 2010. We also consent to the reference to us under the heading “Experts” in the Registration Statement on Form S-1 (File No. 333-178165) incorporated by reference into this Registration Statement.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

February 7, 2012
