

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM S-8**

**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)

**04-3308180**  
(I.R.S. Employer  
Identification No.)

**62 Fourth Avenue  
Waltham, Massachusetts 02451  
(781) 890-9989**  
(Address, Including Zip Code, of Principal Executive Offices)

**NEUROMETRIX, INC. 2010 EMPLOYEE STOCK PURCHASE PLAN**  
(Full Title of the Plan)

**Shai N. Gozani, M.D., Ph.D.**  
**President and Chief Executive Officer**  
**NEUROMETRIX, INC.**  
**62 Fourth Avenue  
Waltham, Massachusetts 02451  
(781) 890-9989**  
(Name, Address and Telephone Number, Including  
Area Code, of Agent For Service)

**Copies to:**

**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

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 definition 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 Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.0001 par value	231,975 shares	\$ 0.53	\$ 122,947	\$ 14.27
Rights to purchase Series A Junior Participating Cumulative Preferred Stock, \$0.001 par value	(3)	(3)	(3)	None

- (1) The maximum number of shares which may be sold pursuant to the Plan is subject to adjustment in accordance with certain anti-dilution and other provisions of the Plan. Accordingly, pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement covers, in addition to the number of shares stated above, an indeterminate number of shares which may be issuable after the operation of any such anti-dilution and other provisions.
- (2) This calculation is made solely for the purpose of determining the registration fee pursuant to the provisions of Rule 457(c) and (h) under the Securities Act on the basis of the average of the high and low sale prices per share of the Common Stock on the NASDAQ as of a date (April 27, 2011) within five business days prior to filing this Registration Statement.
- (3) Pursuant to the Shareholder Rights Agreement, dated as of March 7, 2007, between NeuroMetrix, Inc. and American Stock Transfer & Trust Company, as amended (the "Rights Agreement"), each share of common stock has an attached right to purchase one ten-thousandth of a share of Series A Junior Participating Cumulative Preferred Stock, par value \$0.001 per share, of the Company, which rights are not currently exercisable, on the terms set forth in the Rights Agreement. No separate consideration will be received for the rights.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is filed to register additional securities of the same class as other securities for which a separate Registration Statement filed on Form S-8 (SEC File No. 333-167180) of the Registrant is effective. The information contained in the Registrant's Registration Statement on Form S-8 (SEC File No. 333-167180) is hereby incorporated by reference pursuant to General Instruction E.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

Item 8. Exhibits.

- 5.1 Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the legality of shares being registered.
- 23.1 Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in opinion of counsel filed as Exhibit 5.1).
- 23.2 Consent of PricewaterhouseCoopers LLP.
- 24 Powers of Attorney (included in the signature page to this Registration Statement).

**SIGNATURES**

*The Registrant.* Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Waltham, Massachusetts on this 28<sup>th</sup> day of April, 2011.

NEUROMETRIX, INC.

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

Each person whose signature appears below constitutes and appoints Shai N. Gozani, M.D., Ph.D. and Thomas T. Higgins, and each of them singly, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them singly, for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 of NeuroMetrix, Inc., and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting to the attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in or about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that the attorneys-in-fact and agents or any or each of them or their substitute may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons on April 28, 2011 in the capacities indicated below.

Name	Title
/s/ SHAI N. GOZANI, M.D., PH.D. Shai N. Gozani, M.D., Ph.D.	Chairman, President and Chief Executive Officer (Principal Executive Officer)
/s/ THOMAS T. HIGGINS Thomas T. Higgins	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)

/s/ DAVID E. GOODMAN, M.D.  
David E. Goodman, M.D.

Director

/s/ ALLEN J. HINKLE, M.D.  
Allen J. Hinkle M.D.

Director

/s/ NANCY E. KATZ  
Nancy E. Katz

Director

/s/ CHARLES R. LAMANTIA  
Charles R. LaMantia

Director

/s/ TIMOTHY R. SURGENOR  
Timothy R. Surgenor

Director

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**NEUROMETRIX, INC.**

**INDEX TO EXHIBITS FILED WITH  
FORM S-8 REGISTRATION STATEMENT**

<b>Exhibit Number</b>	<b>Description</b>
5.1	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. as to the legality of shares being registered.
23.1	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in opinion of counsel filed as Exhibit 5.1).
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April 28, 2011

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 of a Registration Statement on Form S-8 (the "Registration Statement"), pursuant to which the Company is registering the issuance under the Securities Act of 1933, as amended, of a total of (1) 231,975 shares (the "Shares") of its common stock, \$0.0001 par value per share (the "Common Stock"), pursuant to the Company's 2010 Employee Stock Purchase Plan (the "Plan"), and (2) 231,975 rights (the "Rights") to purchase one ten-thousandth of a share of Series A Junior Participating Cumulative Preferred Stock, par value \$0.001 per share, of the Company, which Rights are attached to the Shares, are issuable pursuant to the Shareholder Rights Agreement, dated as of March 7, 2007, between the Company and American Stock Transfer & Trust Company, as amended, and are not currently exercisable. This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Restated Certificate of Incorporation and By-Laws, as amended and restated, both as currently in effect; 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 Statement and the exhibits thereto.

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, we are of the opinion that (i) the Shares and the Rights have been duly and validly authorized by the Company and (ii) the Shares, when issued and sold pursuant to the Plan, will be duly and validly issued, fully paid and non-assessable shares of the Common Stock, free of preemptive rights.

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

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

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Our opinion is limited to the General Corporation Laws of the State of Delaware and the reported judicial decisions interpreting those 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.

We understand that you wish to file this opinion as an exhibit to the Registration Statement, and we hereby consent thereto.

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-8 of our report dated March 7, 2011 relating to the financial statements and financial statement schedule, which appears in NeuroMetrix, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2010.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

April 28, 2011

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