

**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)

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

Delaware
(State of Incorporation)

(Address of Registrant's principal executive offices)

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

**NEUROMETRIX, INC. THIRD AMENDED AND RESTATED 2004
STOCK OPTION AND INCENTIVE 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, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

**H. David Henken, Esq.
Daniel P. Adams, Esq.**
Goodwin Procter LLP
Exchange Place
Boston, Massachusetts 02109-2881
(617) 570-1000

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

Large accelerated filer

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(2)(3)	Proposed Maximum Offering Price Per Share(4)	Proposed Maximum Aggregate Offering Price(4)	Amount of Registration Fee
Common Stock, par value \$0.0001 per share(1)	1,000,000 shares	\$ 1.75	\$ 1,745,000	\$ 97.38

(1) This Registration Statement also relates to the rights to purchase shares of Series A Junior Participating Cumulative Preferred Stock of the Registrant which are attached to all shares of Common Stock pursuant to the terms of the Registrant's Shareholder Rights Agreement dated March 7, 2007. Until the occurrence of certain prescribed events, the rights are not exercisable, are evidenced by the certificates for the Common Stock and will be transferred only with such stock.

(2) This Registration Statement relates to 1,000,000 shares of Common Stock, par value \$0.0001 per share, of NeuroMetrix, Inc. ("Common Stock") available for issuance under the NeuroMetrix, Inc. Third Amended and Restated 2004 Stock Option and Incentive Plan (together with previous versions of such plan, the "Plan"); plus such indeterminate number of additional shares of Common Stock as may be required pursuant to the Plan in the event of a stock dividend, stock split, recapitalization or other similar event.

(3) NeuroMetrix, Inc. (the "Company") previously filed a registration statement on Form S-8 on August 9, 2004, a registration statement on Form S-8 on June 22, 2006 and a registration statement on Form S-8 on May 27, 2008 registering the issuance of shares of Common Stock under the Plan. By filing this Registration Statement in accordance with Instruction E to Form S-8, the Company registers the issuance of the 1,000,000 additional shares of Common Stock approved for issuance under the Plan at the Annual Meeting of Stockholders of the Company held on May 21, 2009.

(4) This estimate is made pursuant to Rule 457(c) and (h) under the Securities Act of 1933, as amended (the "Securities Act"), solely for the purpose of determining the amount of the registration fee. The registration fee is based upon the average of the high and low sales prices for a share of Common Stock on June 1, 2009, as reported on the NASDAQ Global Market.

The Company previously filed a Registration Statement on Form S-8 with the Securities and Exchange Commission on August 9, 2004 (SEC File No. 333-118059) in connection with the Plan (the "Original Filing"). This Registration Statement registers additional shares of the Company's Common Stock to be issued pursuant to the Plan. The contents of the Original Filing, as updated by the information set forth below, are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 6. Indemnification of Directors and Officers

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

As permitted by the Delaware General Corporation Law, our Third Amended and Restated Certificate of Incorporation, or certificate of incorporation, includes a provision that eliminates the personal liability of our directors for monetary damages for breach of fiduciary duty as a director, except for liability (1) for any breach of the director's duty of loyalty to us or our stockholders, (2) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (3) under section 174 of the Delaware General Corporation Law (regarding unlawful dividends and stock purchases) or (4) for any transaction from which the director derived an improper personal benefit.

As permitted by the Delaware General Corporation Law, our Second Amended and Restated By-laws, as amended, or by-laws, provide that (1) we are required to indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law, subject to certain very limited exceptions, (2) we may indemnify other employees as set forth in the Delaware General Corporation Law, (3) we are required to advance expenses, as incurred, to our directors in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to certain very limited exceptions, (4) we may advance expenses, as incurred, to our officers and other employees in connection with a legal proceeding, as permitted by the Delaware General Corporation Law and (5) the rights conferred in our by-laws are not exclusive.

We have entered into indemnification agreements with each of our directors to give such directors additional contractual assurances regarding the scope of the indemnification set forth in our certificate of incorporation and to provide additional procedural protections. We also intend to enter into indemnification agreements with any new directors in the future.

The indemnification provisions in our certificate of incorporation, by-laws and the indemnification agreements entered into between us and each of our directors and executive officers may be sufficiently broad to permit indemnification of our directors and executive officers for liabilities arising under the Securities Act of 1933.

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We have obtained liability insurance for our officers and directors.

Item 8. Exhibits

The exhibits listed below represent a complete list of exhibits filed or incorporated by reference as part of this Registration Statement.

Exhibit Number	Description
4.1	Third Amended and Restated Certificate of Incorporation of NeuroMetrix, Inc. (incorporated herein by reference to NeuroMetrix, Inc.'s Registration Statement on Form S-8 filed August 9, 2004)
4.2	Certificate of Designations of Series A Junior Participating Cumulative Preferred Stock of NeuroMetrix, Inc., par value \$0.001 per share (incorporated herein by reference to NeuroMetrix, Inc.'s Registration Statement on Form 8-A filed on March 8, 2007)
4.3	Second Amended and Restated By-laws of NeuroMetrix, Inc. (incorporated herein by reference to NeuroMetrix, Inc.'s Registration Statement on Form S-8 filed August 9, 2004)
4.4	Amendment No. 1 to Second Amended and Restated By-laws of NeuroMetrix, Inc. (incorporated herein by reference to NeuroMetrix, Inc.'s Current Report on Form 8-K filed on September 17, 2007)
4.5	Specimen certificate for shares of common stock (incorporated herein by reference to NeuroMetrix, Inc.'s Registration Statement on

- 4.6 Shareholder Rights Agreement, dated as of March 7, 2007, between NeuroMetrix, Inc. and American Stock Transfer & Trust Company, as Rights Agent (incorporated herein by reference to NeuroMetrix, Inc.'s Registration Statement on Form 8-A filed on March 8, 2007)
- *5.1 Legal opinion from Goodwin Procter LLP
- *23.1 Consent of PricewaterhouseCoopers LLP, as independent registered public accounting firm
- 23.2 Consent of Goodwin Procter LLP (contained in the opinion filed as Exhibit 5.1 to this Registration Statement)
- 24.1 Power of attorney (included on the signature page to this Registration Statement)
- 99.1 NeuroMetrix, Inc. Third Amended and Restated 2004 Stock Option and Incentive Plan (incorporated herein by reference to Appendix A to NeuroMetrix, Inc.'s Proxy Statement on Schedule 14A filed April 24, 2009)

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Company 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 3rd day of June, 2009.

NEUROMETRIX, INC.

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

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Shai N. Gozani, M.D., Ph.D. and Joseph A. Calo as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, 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 in the capacities and on the date indicated. Each person listed below has signed this Registration Statement as an officer or director of NeuroMetrix, Inc.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Shai N. Gozani, M.D., Ph.D.</u> Shai N. Gozani, M.D., Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	June 3, 2009
<u>/s/ Joseph A. Calo</u> Joseph A. Calo	Acting Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	June 3, 2009
<u>/s/ David E. Goodman, M.D.</u> David E. Goodman, M.D.	Director	June 3, 2009
<u>/s/ Allen J. Hinkle, M.D.</u> Allen J. Hinkle, M.D.	Director	June 3, 2009
<u>/s/ Charles R. LaMantia</u> Charles R. LaMantia	Director	June 3, 2009
<u>/s/ W. Mark Lortz</u> W. Mark Lortz	Director	June 3, 2009

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* Filed herewith.

June 3, 2009

NeuroMetrix, Inc.
62 Fourth Avenue
Waltham, Massachusetts 02451

Re: Securities Being Registered under Registration Statement on Form S-8

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 1,000,000 shares (the "Shares") of Common Stock, \$0.0001 par value per share, of NeuroMetrix, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's Third Amended and Restated 2004 Stock Option and Incentive Plan (the "Plan").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions expressed below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion expressed below is limited to the Delaware General Corporation Law (which includes applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the Delaware General Corporation Law and the Delaware Constitution). For purposes of the opinion expressed below, we have assumed that a sufficient number of authorized but unissued shares of the Company's Common Stock will be available for issuance when the Shares are issued.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not 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 thereunder.

Very truly yours,

/s/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP

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 20, 2009 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, 2008.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
June 3, 2009
