

**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)

<p><b>Delaware</b> (State of Incorporation)</p>	<p><b>62 Fourth Avenue Waltham, Massachusetts 02451 (781) 890-9989</b> (Address of Registrant's principal executive offices)</p>	<p><b>04-3308180</b> (I.R.S. Employer Identification No.)</p>
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**NEUROMETRIX, INC. SECOND 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 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 <input type="radio"/>	Accelerated filer <input checked="" type="checkbox"/>
Non-accelerated filer <input type="radio"/> (Do not check if a smaller reporting company)	Smaller reporting company <input type="radio"/>

**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	\$ 2.22	\$ 2,220,000	\$ 87.25

(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. Second 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 June 22, 2006 and a registration statement on Form S-8 on August 9, 2004 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 22, 2008.

- (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 May 23, 2008, as reported on the NASDAQ Global Market.

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The Company previously filed a Registration Statements 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 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 8. Exhibits

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

- 4.1 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)
- 4.2 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)
- 4.3 Certificate of Designations for Series A Junior Cumulative Preferred Stock, par value \$0.001 per share (incorporated herein by reference to NeuroMetrix, Inc.'s Current Report on Form 8-K filed on March 8, 2007)
- 4.4 Amendment No. 1 to Second Amended and Restated Bylaws 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 Form S-1)
- 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 Current Report on Form 8-K 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)

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\* Filed herewith.

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### 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 27<sup>th</sup> day of May, 2008.

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 W. Bradford Smith 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.

Signature	Title	Date
<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)	May 27, 2008
<u>/s/ W. Bradford Smith</u> W. Bradford Smith	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 27, 2008
<u>/s/ David E. Goodman, M.D.</u> David E. Goodman, M.D.	Director	May 27, 2008
<u>/s/ Allen J. Hinkle, M.D.</u> Allen J. Hinkle, M.D.	Director	May 27, 2008
<u>/s/ Charles R. LaMantia</u> Charles R. LaMantia	Director	May 27, 2008
<u>/s/ W. Mark Lortz</u> W. Mark Lortz	Director	May 27, 2008

#### EXHIBIT INDEX

Exhibit Number	Description
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May 27, 2008

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 Second 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 opinion expressed below. We have relied, without independent verification, 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

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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 14, 2008 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in NeuroMetrix, Inc's Annual Report on Form 10-K for the year ended December 31, 2007.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
May 27, 2008

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