

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

Amendment No. 1 to

**FORM S-3**

**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, and telephone number, including area code of  
Registrant's principal executive offices)

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

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**Copies to:**

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

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**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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 of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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," "non-accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class Of Securities To Be Registered</b>	<b>Amount to Be Registered (2)(3)</b>	<b>Proposed Maximum Offering Price Per Unit (4)</b>	<b>Proposed Maximum Aggregate Offering Price (5)</b>	<b>Amount of Registration Fee (6)</b>
Common Stock, par value \$0.0001 per share (1)	725,968	\$2.20	\$1,401,728	\$55.46

(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 also relates to an indeterminate number of shares of common stock of NeuroMetrix, Inc. that may be issued upon stock splits, stock dividends or similar transactions in accordance with Rule 416 under the Securities Act.

(3) 651,339 shares of common stock were covered by the Registration Statement on Form S-3 (File No. 333-150087) of NeuroMetrix, Inc., which was filed with the Securities and Exchange Commission on April 4, 2008. By this Amendment No. 1, an additional 74,629 shares are being registered for a total of 725,968 shares.

(4) Determined pursuant to Rule 457(c) under the Securities Act solely for the purpose of calculating the registration fee based on the average of the high and low sales prices for NeuroMetrix, Inc.'s common stock on May 6, 2008 as reported on the NASDAQ Global Market.

(5) Determined pursuant to Rule 457(c) under the Securities Act solely for the purpose of calculating the registration fee based on the average high and low sales prices of NeuroMetrix, Inc.'s common stock on March 31, 2008 for the 651,339 shares originally covered in the Registration Statement on Form S-3 filed with the Securities and Exchange Commission on April 4, 2008 and on May 6, 2008 for the additional 74,629 shares covered in this Amendment No. 1 to the Registration Statement on Form S-3.

(6) Of this amount, \$48.00 was paid with the Registration Statement on Form S-3 originally filed with the Securities and Exchange Commission on April 4, 2008.

**The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

**PROSPECTUS**

**725,968 Shares**

**NEUROMETRIX, INC.**

**Common Stock**  
(par value \$0.0001 per share)

This prospectus relates to the offer and sale by the selling stockholders identified in this prospectus, and any of their pledgees, donees, transferees or other successors in interest, of up to an aggregate of 725,968 shares of common stock of NeuroMetrix, Inc. We are filing the registration statement of which this prospectus is a part at this time to fulfill contractual obligations to do so, which we undertook at the time of the original issuance of the shares. We will not receive any of the proceeds from the sale of the common stock by the selling stockholders, but we are bearing the expenses of registration.

Our common stock is listed on the NASDAQ Global Market under the symbol "NURO." On May 8, 2008, the last reported sale price of our common stock on the NASDAQ Global Market was \$2.52.

**Investing in our securities involves various risks. In our Annual Report on Form 10-K for the year ended December 31, 2007 and Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008, which are incorporated by reference in this prospectus, we identify and discuss several risk factors that you should consider before investing in our securities.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

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*No dealer, sales representative or any other person has been authorized to give any information or to make any representations in connection with this offering other than those contained in this prospectus, and, if given or made, such information or representations must not be relied upon as having been authorized by our company or any other person.*

*This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the shares of common stock to which it relates or an offer to, or a solicitation of, any person in any jurisdiction where such an offer or solicitation would be unlawful. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of our company or that information contained herein is correct as of any time subsequent to the date hereof.*

**PROSPECTUS SUMMARY**

*This summary only highlights the more detailed information appearing elsewhere in this prospectus or incorporated herein by reference. As this is a summary, it may not contain all information that is important to you. You should read this entire prospectus carefully before deciding whether to invest in our common stock.*

*This prospectus contains forward-looking statements. You should read the explanation of the qualifications and limitations on such forward-looking statements on page 3 of this prospectus. You should not place undue reliance on our forward-looking statements.*

*Unless the context otherwise requires, all references to “we,” “us,” “our company” or “the Company” in this prospectus refers to NeuroMetrix, Inc., a Delaware corporation, together with other entities with which we consolidate our financial statements.*

**About NeuroMetrix, Inc.**

We are a medical device company advancing patient care through the development and marketing of innovative medical devices to help physicians assess and treat conditions of the nervous system, such as neuropathies, which involve the peripheral nerves and parts of the spine, and neurovascular conditions, such as diabetic retinopathy. We are also developing medical devices designed to be used to provide regional anesthesia and pain control. Our focus to date has been on products that help physicians with the assessment of neuropathies and neurovascular conditions. We have three products cleared by the United States Food and Drug Administration, or FDA, two that are currently being marketed to physicians and clinics, which include the NC-stat System for the assessment of neuropathies and the DigiScope for the detection of eye disorders, such as diabetic retinopathy. A third product, the ADVANCE System, a traditional nerve conduction system for the assessment of neuropathies, received 510(k) clearance by the FDA in April 2008. This determination by the FDA allows us to market the ADVANCE System in the United States.

NeuroMetrix, Inc. is a Delaware corporation. Our principal executive offices are located at 62 Fourth Avenue, Waltham, Massachusetts 02451 and our telephone number is (781) 890-9989. Our website is <http://www.neurometrix.com>. The information found on our website is not part of this prospectus.

**The Offering**

This prospectus relates to the offering and sale of up to an aggregate of 725,968 shares of our common stock by the selling stockholders. The shares covered by this prospectus were issued in December 2007 in a private placement conducted in connection with our acquisition of substantially all of the assets of EyeTel.

We are registering the common stock covered by this prospectus in order to fulfill our contractual obligations to do so, which we undertook at the time of the original issuance of the shares. Registration of the common stock does not necessarily mean that all or any portion of such stock will be offered for sale by the selling stockholders.

We have agreed to bear the expenses of the registration of the common stock under federal and state securities laws, but we will not receive any proceeds from the sale of any common stock offered under this prospectus.

**Plan of Distribution**

The selling stockholders may sell the common stock through agents or dealers, directly to one or more individuals, institutional or other purchasers or through any combination of these methods of sale. The distribution of the common stock may be effected in one or more transactions at market prices then prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated prices. See "Plan of Distribution" beginning on page 4.

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## Risk Factors

Our business is subject to numerous risks as discussed more fully in the section entitled "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2007 and Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008, which are incorporated by reference in this prospectus. Principal risks of our business include the following, among others:

- We have incurred significant operating losses since inception and cannot assure you that we will achieve profitability. We incurred a net loss of \$8.4 million in 2007, compared to net income of \$4.3 million and \$249,000 in 2006 and 2005, respectively, and our revenues declined 19.2% to \$44.6 million in 2007, after increasing 61.1% to \$55.2 million in 2006 from \$34.3 million in 2005. We anticipate that revenues in 2008 will continue to decline primarily as a result of a number of unfavorable developments that have occurred relating to the reimbursement of nerve conduction studies performed using the NC-stat System.
- If physicians or other healthcare providers are unable to obtain sufficient reimbursement from third-party healthcare payers for procedures performed using our products, the adoption of our products and our future product sales will be severely harmed. In particular, there have recently been a number of unfavorable developments relating to the reimbursement of nerve conduction studies performed using the NC-stat System that may have a material adverse impact on our business, including the approval by the American Medical Association CPT Editorial Panel of a new Category III CPT Code for nerve conduction studies performed using equipment with certain automated features such as the NC-stat System that we believe occurred in February 2008 and the adoption by a significant number of third party payers of policies indicating that they will not provide reimbursement for the use of the NC-stat System.
- We currently rely on sales of the products that comprise the NC-stat System to generate a substantial portion of our revenues, and any factors that negatively impact our sales of these products, such as those described above relating to reimbursement, could significantly reduce our ability to generate revenues.
- We are dependent on several single source manufacturers to produce the NC-stat System and the DigiScope and any changes in the relationships with these manufacturers could prevent us from delivering products to our customers in a timely manner and may adversely impact our future revenues or costs.
- We are subject to extensive regulation by the U.S. Food and Drug Administration, which could restrict the sales and marketing of our current and future products and could cause us to incur significant costs.
- We are subject to federal and state laws prohibiting "kickbacks" and false or fraudulent claims, which, if violated, could subject us to substantial penalties. Additionally, any challenge to or investigation into our practices under these laws, such as the government investigations by the Office of Inspector General of the Department of Health and Human Services and the U.S. Department of Justice that we are subject to, could cause adverse publicity and be costly to respond to, and thus could harm our business.

## SPECIAL STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, statements regarding our or our management's expectations, hopes, beliefs, intentions or strategies regarding the future. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "plan" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. The forward-looking statements contained in this prospectus are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in the section titled "Prospectus Summary—Risk Factors." Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

## THE SELLING STOCKHOLDERS

We are filing this registration statement pursuant to the Registration Rights Agreement dated December 26, 2007 by and among us, the persons and entities listed on the table below under the heading "Selling Stockholders" (to whom we refer to herein as the "selling stockholders") and certain other stockholders.

The selling stockholders are offering up to an aggregate of 725,968 shares of our common stock issued pursuant to the Asset Purchase Agreement, dated December 26, 2007, by and among us, EyeTel and EyeTel Reading Center LLC in connection with our acquisition of substantially all the assets of EyeTel. We are registering the aforementioned shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time pursuant to obligations we undertook in connection with our acquisition of substantially all the assets of EyeTel. We have agreed to pay all expenses in connection with this offering, not including underwriting fees, discounts or commissions of the selling stockholders or any legal fees and expenses of counsel to the selling stockholders or any other expenses incurred by the selling stockholders.

The following table sets forth, for each selling stockholder, the total number of shares of common stock currently beneficially owned, the number of shares of common stock covered by this prospectus and the total number of shares of common stock that the selling stockholder will beneficially own upon completion of this offering. The amounts set forth below are based upon information provided to us by representatives of the selling stockholders, or on our records, and are accurate to the best of our knowledge as of the date specified below. It is possible, however, that the selling stockholder may acquire or dispose of additional shares of common stock from time to time after the date of this prospectus. This table assumes that the selling stockholder will sell all of the shares of common stock covered by this prospectus. We cannot assure you that the selling stockholders will sell all or any portion of the common stock offered hereby.

The common stock offered by this prospectus may be offered from time to time by the selling stockholders named below, or by any of their pledgees, donees, transferees or other successors in interest, provided that such pledgees, donees, transferees or other successors in interest offering common stock using this prospectus are named as selling stockholders in this prospectus via supplement or amendment in accordance with the Securities Act (except where sales by any such person or entity under this prospectus could not exceed 500 shares, in which case that person or entity need not be named in a prospectus supplement).

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## Selling Stockholders

Name	Common Stock Beneficially Owned(1)	Common Stock Offered Hereby	Common Stock to be Owned After Offering(2)	Percentage of All Common Stock(3)
Lighthouse Capital Partners V, L.P.	518,043	518,043	0	*
Gibralt Capital Corporation	31,373	31,373	0	*
Second City Capital Partners I, Limited Partnership	31,373	31,373	0	*
RL Capital Partners, LP	5,137	3,137	2,000	*
Robert D. Safian	656	656	0	*
Stephen H. Orr, M.D.	463	463	0	*
Steven B. Epstein and Deborah L. Epstein	1,186	1,186	0	*
Aaron D. Berman	144	144	0	*
Jeffrey H. Becker	240	240	0	*
Steven L. Albany	631	631	0	*
John J. Richardson	114	114	0	*
Keith G. Frey	15,526	15,526	0	*
Stephen M. Cumbie	1,579	1,579	0	*
Bruce and Laura Goethe	228	228	0	*
Egatniv, LLC	9,411	9,411	0	*
John C. Garbarino	36,227	36,227	0	*
Sean Coyle, Custodian for Julia Coyle	126	126	0	*
Sean Coyle, Custodian for Michael Coyle	126	126	0	*
Sean Coyle, Custodian for Samar Coyle	126	126	0	*
Maria Coyle	630	630	0	*
Shai Stern and Michelle Stern	6,274	6,274	0	*
Radius Venture Partners II, L.P.	68,355	68,355	0	*
<b>Total</b>	<b>727,968</b>	<b>725,968</b>	<b>2,000</b>	<b>*</b>

\* indicates less than 1%

- (1) As of February 29, 2008, except with respect to Keith G. Frey and John C. Garbarino, as of March 20, 2008.
- (2) Assumes that the selling stockholder will sell all shares of common stock offered by it under this prospectus.
- (3) This number represents the percentage of common stock to be owned by the selling stockholder after completion of the offering, based on the number of shares of common stock outstanding as of April 2, 2008 (13,690,134 shares).

## USE OF PROCEEDS

We will not receive any proceeds from the sale by the selling stockholders of the securities covered by this prospectus.

## PLAN OF DISTRIBUTION

The selling stockholders may resell or redistribute the securities listed elsewhere in this prospectus from time to time on any stock exchange or automated interdealer quotation system on which the securities are listed, in the over-the-counter market, in privately negotiated transactions, or in any other legal manner, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices. Persons who are pledgees, donees, transferees, or other successors in interest of any of the named selling stockholders (including but not limited to persons who receive securities from a named selling stockholder as a gift, partnership distribution or other non-sale-related transfer after the date of this prospectus) may also use this prospectus and are included when we refer to "selling stockholders" in this prospectus. Selling stockholders may sell the securities by one or more of the following methods, without limitation:

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- block trades (which may include cross trades) in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker or dealer as principal and resale by the broker or dealer for its own account;
- an exchange distribution or secondary distribution in accordance with the rules of any stock exchange on which the securities are listed;
- ordinary brokerage transactions and transactions in which the broker solicits purchases;
- an offering at other than a fixed price on or through the facilities of any stock exchange on which the securities are listed or to or through a market maker other than on that stock exchange;
- privately negotiated transactions, directly or through agents;
- short sales;
- through the writing of options on the securities, whether or the options are listed on an options exchange;
- through the distribution of the securities by any selling stockholder to its partners, members or stockholders;
- one or more underwritten offerings;
- agreements between a broker or dealer and one or more of the selling stockholders to sell a specified number of the securities at a stipulated price per share; and
- any combination of any of these methods of sale or distribution, or any other method permitted by applicable law.

The selling stockholders may also transfer the securities by gift. We do not know of any current arrangements by the selling stockholders for the sale or distribution of any of the securities.

The selling stockholders may engage brokers and dealers, and any brokers or dealers may arrange for other brokers or dealers to participate in effecting sales of the securities. These brokers, dealers or underwriters may act as principals, or as an agent of a selling stockholder. Broker-dealers may agree with a selling stockholder to sell a specified number of the securities at a stipulated price per security. If the broker-dealer is unable to sell securities acting as agent for a selling stockholder, it may purchase as principal any unsold securities at the stipulated price. Broker-dealers who acquire securities as principals may thereafter resell the securities from time to time in transactions in any stock exchange or automated interdealer quotation system on which the securities are then listed, at prices and on terms then prevailing at the time of sale, at prices related to the then-current market price or in negotiated transactions. Broker-dealers may use block transactions and sales to and through broker-dealers, including transactions of the nature described above. The selling stockholders may also sell the securities in accordance with Rule 144 under the Securities Act rather than pursuant to this prospectus, regardless of whether the securities are covered by this prospectus.

From time to time, one or more of the selling stockholders may pledge, hypothecate or grant a security interest in some or all of the securities owned by them. The pledgees, secured parties or persons to whom the securities have been hypothecated will, upon foreclosure in the event of default, be deemed to be selling stockholders. The number of a selling stockholder's securities offered under this prospectus will decrease as and when it takes such actions. The plan of distribution for that selling stockholder's securities will otherwise remain unchanged. In addition, a selling stockholder may, from time to time, sell the securities short, and, in those instances, this prospectus may be delivered in connection with the short sales and the securities offered under this prospectus may be used to cover short sales.

The selling stockholders and any underwriters, brokers, dealers or agents that participate in the distribution of the securities may be deemed to be "underwriters" within the meaning of the Securities Act, and any discounts, concessions, commissions or fees received by them and any profit on the resale of the securities sold by them may be deemed to be underwriting discounts and commissions.

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In addition, the selling stockholders may enter into derivative or hedging transactions with third parties, including without limitation broker-dealers, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with such transactions, a third party may sell securities covered by and pursuant to this prospectus and an applicable prospectus supplement, including, without limitation, in connection with a distribution of the securities by a broker-dealer. In such cases, the third party may use securities borrowed from the selling stockholder or others to settle such sales and may use securities received from the selling stockholders to close out any related short positions. A selling stockholder may enter into option or other transactions with broker-dealers that involve the delivery of the securities offered hereby to the broker-dealers, who may then resell or otherwise transfer those securities. A selling stockholder may also loan or pledge securities covered by this prospectus and an applicable prospectus supplement to third parties, who may sell the loaned securities or, in an event of default in the case of a pledge, sell the pledged securities pursuant to this prospectus and the applicable prospectus supplement.

The selling stockholders and other persons participating in the sale or distribution of the securities will be subject to applicable provisions of the Exchange Act and the related rules and regulations adopted by the Securities and Exchange Commission, including Regulation M. This regulation may limit the timing of purchases and sales of any of the securities by the selling stockholders and any other person. The anti-manipulation rules under the Exchange Act may apply to sales of securities in the market and to the activities of the selling stockholders and their affiliates. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of the securities to engage in market-making activities with respect to the particular securities being distributed for a period of up to five business days before the distribution. These restrictions may affect the marketability of the securities and the ability of any person or entity to engage in market-making activities with respect to the securities.

We have agreed to indemnify the selling stockholders and their respective officers, directors, employees, agents and representatives, and each other person who may be subject to liability because of his, her or its connection with the selling stockholder, against specified liabilities, including liabilities under

the federal securities laws. The selling stockholders have agreed to indemnify us, our officers, directors, employees, agents and representatives and each other person subject to liability because of his, her or its connection with us, against specified liabilities arising from information provided by the selling stockholder for use in this prospectus, including liabilities under the federal securities laws. In each case, indemnification includes each person who is an affiliate of or controls one of these specified indemnified persons within the meaning of the federal securities laws. The selling stockholders may agree to indemnify any brokers, dealers or agents who participate in transactions involving sales of the securities against specified liabilities arising under the federal securities laws in connection with the offering and sale of the securities.

The securities offered hereby were originally issued to the selling stockholders pursuant to an exemption from the registration requirements of the Securities Act. We agreed to register the securities under the Securities Act, and to keep the registration statement of which this prospectus is a part effective, as to any selling stockholder, until such time as all of the shares of common stock held by such selling stockholder registered under the registration statement of which this prospectus is a part can be sold in any one day, without registration, in compliance with Rule 144 of the Securities Act. We have agreed to pay all expenses in connection with this offering, but not including any underwriting fees, discounts or commissions of the selling stockholders or any legal fees and expenses of counsel to the selling stockholders.

We will not receive any proceeds from sales of any securities by the selling stockholders.

We can not assure you that the selling stockholders will sell all or any portion of the securities offered hereby.

To the extent required by Rule 424 under the Securities Act in connection with any resale or redistribution by a selling stockholder, we will file a prospectus supplement setting forth

- the aggregate number of shares to be sold;
- the purchase price;
- the public offering price;
- if applicable, the names of any underwriter, agent or broker-dealer; and

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- any applicable commissions, discounts, concessions, fees or other items constituting compensation to underwriters, agents or broker-dealers with respect to the particular transaction (which may exceed customary commissions or compensation).

If a selling stockholder notifies us that a material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange, distribution or secondary distribution or a purchase by a broker or dealer, the prospectus supplement will include any other facts that are material to the transaction. If applicable, this may include a statement to the effect that the participating broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus.

#### **INCORPORATION OF DOCUMENTS BY REFERENCE**

The Securities and Exchange Commission allows us to incorporate by reference the information that we file with them. Incorporation by reference means that we can disclose important information to you by referring you to other documents that are legally considered to be part of this prospectus and later information that we file with the Securities and Exchange Commission will automatically update and supersede the information in this prospectus, any supplement and the documents listed below. Our Securities and Exchange Commission file number is 000-50856. We incorporate by reference the specific documents listed below.

- Annual Report on Form 10-K for the year ended December 31, 2007, which was filed on March 14, 2008;
- Current Report on Form 8-K, event date December 26, 2007, which was filed on December 28, 2007, as amended by the Current Report on Form 8-K/A filed on March 7, 2008;
- Current Report on Form 8-K, event date February 5, 2008, which was filed on February 6, 2008;
- Current Report on Form 8-K, event date February 22, 2008, which was filed on February 27, 2008;
- Current Report on Form 8-K, event date May 1, 2008, which was filed on May 2, 2008;
- Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008, which was filed on May 12, 2008;
- The description of our common stock contained in the Registration Statement on Form 8-A, which was filed on July 19, 2004, and all amendments and reports updating such description; and
- The description of our preferred stock purchase rights contained in the Registration Statement on Form 8-A, which was filed on March 8, 2007, and all amendments and reports updating such description.

We also incorporate by reference any future filings made with the Securities and Exchange Commission under Section 13(a), 13(c), 14, or 15(d) of the Exchange Act (1) on or after the date of filing of the registration containing this prospectus and prior to the effectiveness of the registration statement and (2) on or after the date of this prospectus until the earlier of the date on which all of the securities registered hereunder have been sold by the selling stockholders or this registration statement has been withdrawn. Those documents will become a part of this prospectus from the date that the documents are filed with the Securities and Exchange Commission.

Upon oral or written request and at no cost to the requester, we will provide to any person, including a beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus. All requests

should be made to: NeuroMetrix, Inc., 62 Fourth Avenue, Waltham, Massachusetts 02451, Attn: Corporate Secretary. Telephone requests may be directed to the Corporate Secretary at (781) 890-9989. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus or the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act, and we are required to file reports and proxy statements and other information with the Securities and Exchange Commission. You may read and copy these reports, proxy statements and information at the Securities and Exchange Commission's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission maintains a web site that contains reports, proxy and information statements and other

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information regarding registrants, including NeuroMetrix, Inc., that file electronically with the Securities and Exchange Commission. You may access the Securities and Exchange Commission's web site at <http://www.sec.gov>.

## EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2007 have been so incorporated in reliance on the report (which contains an explanatory paragraph on the effectiveness of internal control over financial reporting due to the exclusion of certain elements of the internal control over financial reporting of the EyeTel business that the registrant acquired during the year ended December 31, 2007) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical consolidated financial statements included in Exhibit 99.1 our Current Report on Form 8-K/A filed on March 7, 2008 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## LEGAL MATTERS

Goodwin Procter LLP, Boston, Massachusetts has passed upon the validity of the shares of our common stock offered by this prospectus.

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725,968 Shares

NEUROMETRIX, INC.

Common Stock

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PROSPECTUS

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, 2008

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## Part II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution.

The expenses in connection with the issuance and distribution of the securities being registered are set forth in the following table (all amounts except the registration fee are estimated):

Registration fee—Securities and Exchange Commission	\$	55
Accountants' fees and expenses	\$	15,000
Legal fees and expenses	\$	30,000
Printing expenses	\$	5,000
<b>TOTAL</b>	<b>\$</b>	<b>50,055</b>

All expenses itemized above shall be borne by us.



**Item 15. 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 bylaws, as amended, or bylaws, 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 and executive officers in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to certain very limited exceptions and (4) the rights conferred in our bylaws 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, bylaws and the indemnification agreements entered into between us and each of our directors and our President and Chief Executive Officer may be sufficiently broad to permit indemnification of our directors and executive officers for liabilities arising under the Securities Act of 1933.

We have obtained liability insurance for our officers and directors.

**Item 16. Exhibits.**

Exhibit No.	—	Description
4.1	—	Third Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to the Company's Registration Statement on Form S-8 (Registration No. 333-118059))
4.2	—	Certificate of Designations of Series A Junior Participating Cumulative Preferred Stock of the Company (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on March 8, 2007)
4.3	—	Second Amended and Restated Bylaws of the Company (incorporated by reference to the Company's Registration Statement on Form S-8 (Registration No. 333-118059))
4.4	—	Amendment No. 1 to Second Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on September 17, 2007)
4.4	—	Specimen certificate for shares of common stock of the Company (incorporated by reference to the Company's Registration Statement on Form S-1 (Registration No. 333-115440))
*5.1	—	Opinion of Goodwin Procter LLP
*23.1	—	Consent of PricewaterhouseCoopers LLP
*23.2	—	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
*24.1	—	Power of Attorney (contained in signature page)

\* Filed herewith.

**Item 17. Undertakings.**

A. The undersigned Registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

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(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the registration statement.

*provided, however,* that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b).

2. That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

4. That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

5. That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

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(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

B. That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

C. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling

precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

## SIGNATURES

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-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on May 13, 2008.

NEUROMETRIX, INC.

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

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 dates indicated.

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 13, 2008
<u>/s/ W. Bradford Smith</u> W. Bradford Smith	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 13, 2008
<u>*</u> David E. Goodman, M.D.	Director	May 13, 2008
<u>*</u> Charles R. LaMantia	Director	May 13, 2008
<u>*</u> W. Mark Lortz	Director	May 13, 2008
<u>*</u> Allen J. Hinkle, M.D.	Director	May 13, 2008

\* By: /s/ Shai N. Gozani, M.D., Ph.D.  
 Shai N. Gozani, M.D., Ph.D.  
 Attorney-in-Fact

## EXHIBIT INDEX

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\*24.1 — Power of Attorney (contained in signature page)

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\* Filed herewith.

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May 13, 2008

NeuroMetrix, Inc.  
62 Fourth Avenue  
Waltham, MA 02451

Re: Securities Being Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with your filing of a Registration Statement on Form S-3 (as amended or supplemented, the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of the offering by the selling stockholders listed in the Registration Statement under "Selling Stockholders" (the "Selling Stockholders") of up to 725,968 shares (the "Shares") of Common Stock, \$0.0001 par value per share, of NeuroMetrix, Inc., a Delaware corporation (the "Company").

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 opinions 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).

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and validly issued, and are fully paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption "Legal Matters" in 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

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## CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Amendment No. 1 to Form S-3 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. We also consent to the incorporation by reference of our report dated May 4, 2007, except for Note 3 as to which the date is October 9, 2007, Note 20 as to which the dates are September 21, 2007 and October 25, 2007 and Note 21 as to which the date is October 31, 2007 relating to the consolidated financial statements of EyeTel Imaging, Inc., which appears in the Current Report on Form 8-K/A of NeuroMetrix, Inc. filed on March 7, 2008. We also consent to the references to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts  
May 12, 2008

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