



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

October 27, 2009

Shai N.Gozani, M.D., Ph.D.
Chairman, Chief Executive Officer and President
NeuroMetrix, Inc.
62 Fourth Avenue
Waltham, Massachusetts 02451

**Re: NeuroMetrix, Inc.
Registration Statement on Form S-3
Filed October 2, 2009
File No. 333-162303**

Dear Dr. Gozani:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Fee Table

1. Please tell us whether the “certain major transactions and events of default” and the “certain events specified in the warrants” have occurred. If not, it appears to be premature to register the underlying shares for resale. Please revise or provide us an analysis of the authority on which you rely.

Use of Proceeds, page 19

2. We note your disclosure regarding “the exercise covered by this prospectus.” Generally it is inconsistent with Section 5 of the Securities Act to register a transaction that was started without registration. Please provide us your analysis regarding how the registration of the exercise of the warrants is consistent with the Securities Act.

Selling Stockholders, page 20

3. Given the nature and size of the transaction being registered, please tell us your basis for determining that the transaction is appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i). Include in your analysis:
 - the total shares offered by each group of affiliated selling stockholders, expressed as a percentage as a percentage of total issued and outstanding securities held by persons other than the selling stockholders, affiliates of the company, and affiliates of the selling stockholders; in this analysis, the calculation of the number of outstanding shares should not include any securities underlying any outstanding convertible securities, options, or warrants;
 - a complete explanation of the purpose and effects of the warrant redemption provisions, exercise price adjustment provisions and the delay in the warrants becoming exercisable; and
 - the extent to which the beneficial ownership limitations encourage the selling shareholders to engage in public sales of your securities in connection with the exercise of the warrants.
4. Please provide us your analysis of your ability to conduct a primary offering on Form S-3.
5. With a view toward disclosure, please tell us when and how Deerfield acquired the 1,845,000 offered shares “prior to the consummation of the private placement.” Include in your response the nature and amount of the consideration paid, the date the consideration was paid, and the filing date of the Exchange Act report in which your unregistered securities issuance was disclosed per Regulation S-K Item 701.
6. Please provide us, with a view toward disclosure in the prospectus, with tabular disclosure of the dollar amount of each payment (including the value of any payments to be made in common stock) in connection with the September 2009

unregistered transaction that you have made or may be required to make to any selling stockholder, any affiliate of a selling stockholder, or any person with whom any selling stockholder has a contractual relationship regarding the transaction (including any interest payments, liquidated damages, payments made to “finders” or “placement agents,” and any other payments or potential payments). Please provide footnote disclosure of the terms of each such payment.

Further, please provide us, with a view toward disclosure in the prospectus, with disclosure of the net proceeds to the issuer in the September 2009 unregistered sale of securities and the total possible payments to all selling stockholders and any of their affiliates in the first year following the unregistered sale.

7. Please provide us, with a view toward disclosure in the prospectus, with tabular disclosure of:
- the total possible profit to be realized as a result of any conversion discounts for securities underlying any other warrants, options, notes, or other securities of the issuer that are held by the selling stockholders or any affiliates of the selling stockholders, presented in a table with the following information disclosed separately:
 - market price per share of the underlying securities on the date of the sale of that other security;
 - the conversion/exercise price per share as of the date of the sale of that other security, calculated as follows:
 - if the conversion/exercise price per share is set at a fixed price, use the price per share on the date of the sale of that other security; and
 - if the conversion/exercise price per share is not set at a fixed price and, instead, is set at a floating rate in relationship to the market price of the underlying security, use the conversion/exercise discount rate and the market rate per share on the date of the sale of that other security and determine the conversion price per share as of that date;
 - the total possible shares to be received under the particular securities (assuming complete conversion/exercise);
 - the combined market price of the total number of underlying shares, calculated by using the market price per share on the date of the sale of that other security and the total possible shares to be received;

- the total possible shares to be received and the combined conversion price of the total number of shares underlying that other security calculated by using the conversion price on the date of the sale of that other security and the total possible number of underlying shares; and
 - the total possible discount to the market price as of the date of the sale of that other security, calculated by subtracting the total conversion/exercise price on the date of the sale of that other security from the combined market price of the total number of underlying shares on that date.
8. Please provide us, with a view toward disclosure in the prospectus, with tabular disclosure of all prior securities transactions between the issuer (or any of its predecessors) and the selling stockholders, any affiliates of the selling stockholders, or any person with whom any selling stockholder has a contractual relationship regarding the transaction (or any predecessors of those persons), with the table including the following information disclosed separately for each transaction:
- the date of the transaction;
 - the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction;
 - the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction and held by persons other than the selling stockholders, affiliates of the company, or affiliates of the selling stockholders;
 - the number of shares of the class of securities subject to the transaction that were issued or issuable in connection with the transaction;
 - the percentage of total issued and outstanding securities that were issued or issuable in the transaction (assuming full issuance), with the percentage calculated by taking the number of shares issued or issuable in connection with the applicable transaction, and dividing that number by the number of shares issued and outstanding prior to the applicable transaction and held by persons other than the selling stockholders, affiliates of the company, or affiliates of the selling stockholders;
 - the market price per share of the class of securities subject to the transaction immediately prior to the transaction; and
 - the current market price per share of the class of securities subject to the transaction.

9. Please provide us, with a view toward disclosure in the prospectus, with tabular disclosure comparing:

- the number of shares outstanding that are held by persons other than the selling stockholders, affiliates of the company, and affiliates of the selling stockholders;
- the number of shares registered for resale by the selling stockholders or affiliates of the selling stockholders in prior registration statements;
- the number of shares registered for resale by the selling stockholders or affiliates of the selling stockholders that continue to be held by the selling stockholders or affiliates of the selling stockholders;
- the number of shares that have been sold in registered resale transactions by the selling stockholders or affiliates of the selling stockholders; and
- the number of shares registered for resale on behalf of the selling shareholders or affiliates of the selling shareholders in the current transaction.

In this analysis, the calculation of the number of outstanding shares should not include any securities underlying any outstanding convertible securities, options, or warrants.

10. Please tell us, with a view toward disclosure in the prospectus, whether – based on information obtained from the selling stockholders – any of the selling stockholders have an existing short position in the company’s common stock and if so:

- the date on which each such selling stockholder entered into that short position; and
- the relationship of the date on which each such selling stockholder entered into that short position to the date of the announcement of the warrant transaction and the filing of the registration statement (*e.g.*, before or after the announcement of the warrant transaction, before the filing or after the filing of the registration statement, etc.).

11. Please provide us, with a view toward disclosure in the prospectus, with:

- a materially complete description of the relationships and arrangements that have existed in the past three years or are to be performed in the future between the issuer (or any of its predecessors) and the selling stockholders, any affiliates of the selling stockholders, or any person with whom any selling

stockholder has a contractual relationship regarding the transaction (or any predecessors of those persons) – the information provided should include, in reasonable detail, a complete description of the rights and obligations of the parties in connection with the sale of the warrants; and

- copies of all agreements between the issuer (or any of its predecessors) and the selling stockholders, any affiliates of the selling stockholders, or any person with whom any selling stockholder has a contractual relationship regarding the transaction (or any predecessors of those persons) in connection with the sale of the warrants.

If it is your view that such a description of the relationships and arrangements between and among those parties already is presented in the prospectus and that all agreements between and/or among those parties are included as exhibits to the registration statement, please provide us with confirmation of your view in this regard.

12. Please provide us, with a view toward disclosure in the prospectus, with a description of the method by which the company determined the number of shares it seeks to register in connection with this registration statement.
13. Please tell us which selling stockholders are broker-dealers and which are affiliates of a broker-dealer. For any selling stockholder that is not a broker-dealer, please tell us whether the stockholder is in the business of buying and selling securities.
14. Where you have not already done so, please identify the individuals who beneficially own your shares held in the name of the entities mentioned in the table and footnotes.

* * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in

possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Celia Soehner at (202) 551-3463 or me at (202) 551-3617 with any questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via facsimile): Philip D. Torrence, Esq. – Honigman Miller Schwartz and Cohn LLP