



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

March 26, 2009

John S. Bowers, Jr.
President and Chief Executive Officer
Northstar Neuroscience, Inc.
2401 Fourth Avenue, Suite 300
Seattle, WA 98121

Re: Northstar Neuroscience, Inc.
Revised Preliminary Proxy Statement on Schedule 14A
Filed March 19, 2009
File No. 1-34078

Dear Mr. Bowers:

We have limited our review of your filing to your response to our March 3, 2009 letter and have no further comments at this time.

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 Exchange Act of 1934 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.

Before you file a definitive proxy statement, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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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 our review of your filing or in response to our comments on your filing.

Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3617 if you have questions.

Sincerely,

Russell Mancuso
Branch Chief