



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

March 3, 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.
Preliminary Proxy Statement on Schedule 14A
Filed February 23, 2009
File No. 1-34078

Dear Mr. Bowers:

This is to advise you that a preliminary screening of the above referenced filing indicates that it fails in material respects to comply with the requirements of the Securities Exchange Act of 1934, the rules and regulations under that Act, and the requirements of the schedule because the financial information is not current. For this reason, we will not perform a detailed examination of the filing and we will not issue comments because to do so would delay the review of other disclosure documents that do not appear to contain comparable deficiencies.

You are advised that, if you mail the proxy statement in its present form, we would be required to consider what recommendation, if any, we should make to the Commission.

We suggest that you consider filing a substantive amendment correcting the deficiencies. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3617 if you have any questions.

Sincerely,

Russell Mancuso
Branch Chief