

Via Facsimile and U.S. Mail
Mail Stop 6010

November 3, 2006

Mr. David Ellison
Chief Financial Officer
Applied Neurosolutions, Inc.
50 Lakeview Parkway
Suite 111
Vernon Hills, IL 60061

**Re: Applied Neurosolutions, Inc.
Form 10-KSB for Fiscal Year Ended December 31, 2005
File No. 1-13835**

Dear Mr. Ellison:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In our comments, we ask you to provide us with more 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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comment or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-KSB for the year ended December 31, 2005

Financial Statements

Notes to Consolidated Financial Statements

Note 5: Stock Option Plan, page 48

1. You disclose that you have issued approximately 2.4 million options in excess of the 12 million shares authorized under your plan. In your June 30, 2006 Form 10-QSB you disclose that your shareholders did not approve your proposed increase in the number of authorized shares under your plan to 20 million and that you have approximately 14.1 million shares outstanding at June 30, 2006. Please address the following issues:

- a. Please explain to us how you can reflect options in excess of your plan authorization as granted and outstanding.
- b. Please explain to us your accounting for the options in excess of the 12 million authorized level both before and after your adoption of SFAS 123R. In your response, please tell us how your accounting complies with the guidance in paragraphs 86 and 87 of FIN 44 regarding shareholder approval of option plans and the definition of a grant date provided in Appendix E of SFAS 123R.
- c. Please explain to us how you granted 4.6 million options to outside directors on June 27, 2006 if you did not have shares available for grant under your plan.
- d. Please explain to us how you granted your new Chief Executive Officer and President, Ms. Ellen R. Hoffing, 6 million stock options and 400,000 shares of restricted stock as disclosed in your Form 8-K dated August 29, 2006 if you did not have shares available for grant under your plan.
- e. It appears that you have mistakenly omitted the table on page 41 disclosing your pro forma operating results for 2005 and 2004 if you had accounted for your stock-based compensation under SFAS 123. Please provide us the omitted table.

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides the requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

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.

In connection with responding to our comments, please provide, in your letter, 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.

Mr. David Ellison
Applied Neurosolutions, Inc.
November 3, 2006
Page 3

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.

If you have any questions, please contact Mark Brunhofer, Senior Staff Accountant, at (202) 551-3638. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant