

Via Facsimile and U.S. Mail  
Mail Stop 6010

October 10, 2006

Mr. John P. McLaughlin  
Chief Executive Officer  
Anesiva, Inc.  
650 Gateway Boulevard  
South San Francisco, CA 94080

**Re: Form 10-K for Fiscal Year Ended December 31, 2005**  
**Filed March 30, 2006**  
**Form 10-Q for the quarter ended June 30, 2006**  
**File No. 0-50573**

Dear Mr. McLaughlin:

We have reviewed your filings 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. Where indicated, we think you should revise your documents 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. In some of our comments, we ask you to provide us with information so we may better understand your disclosure.

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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

**Form 10-K for the year ended December 31, 2005**

Management's Discussion and Analysis, page 37  
Stock Compensation, page 40

1. We note that the fair value of AlgoRx stock decreased during 2005. The fair value used for determining your stock compensation should be based on the fair value at the measurement date and should not be adjusted retroactively based on

subsequent events, including a declining market value or withdrawal of your IPO. Please provide us a schedule of options granted and other equity issuances during the periods presented including the exercise prices and fair values as you determined on the date of grant/issuance and their intrinsic value. If you used fair values different from those used in the financial statements that you filed as part of the IPO that was withdrawn, please revise your financial statements in this Form 10-K to use the values consistent with those in the withdrawn IPO or explain to us the error that was made in the financial statements of the withdrawn IPO that caused you to restate your fair values included in your Form 10-K.

Financial Statements, page 52

Note 8. Capital Structure, page 71

Common Stock, page 71

2. In your statements of stockholders' equity, revise the number of shares in balances and transactions before the merger to reflect the equivalent number of shares issued in the merger similar to a stock split so that shares issued for all periods presented are on the same basis. In your revised stockholders' equity section, include a line item reflecting the equivalent number of shares issued by AlgoRx, the accounting acquirer, to acquire Anesiva, the legal accounting acquirer. This number of shares would appear to be the number of shares issued and outstanding by Anesiva just prior to the merger. Finally, revise your earnings per share amounts for 2003 and 2004 based on the revised equivalent shares in the revised statements of stockholders' equity.

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures, page 46

3. We noted that you use "sufficiently effective" to describe your conclusions on disclosure controls and procedures. The use of terminology other than "effective" raises the question of whether you are attempting to state that disclosure controls and procedures met some standard lower than effective. Please disclose what you mean by "sufficiently effective" or revise to indicate, if true, that your disclosure controls and procedures are effective.

Form 10-Q for the six months ended June 30, 2006

Note 4. Stockholders' Equity, page 12

4. Please tell us how you calculated the amount of compensation that has and will be recorded for the stock issued for \$0.

Mr. John P. McLaughlin  
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As appropriate, please amend your Form 10-K and respond to these comments within 10 business days or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a cover letter with your amendment that keys your responses to our comments. Detailed letters greatly facilitate our review. You should furnish the letter on EDGAR under the form type label CORRESP. 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 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.

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.

You may contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Mary Mast, Review Accountant, at (202) 551-3613 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant