



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

November 29, 2007

VIA U.S. MAIL AND FACSIMILE (858.597.0451)

Mr. Peter Kies
Chief Financial Officer
Inovio Biomedical Corporation
11494 Sorrento Valley Road
San Diego, California 92121-1318

Re: Inovio Biomedical Corporation
Form 10-K for the fiscal year ended December 31, 2006
Filed March 16, 2007
Form 10-Q for the Quarterly Period Ended September 30, 2007
File No. 001-14888

Dear Mr. Kies:

We have reviewed your response letter dated November 8, 2007 and filings and have the following 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 filings. 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 Fiscal Year Ended December 31, 2006

Consolidated Financial Statements, page F-1

Note 8. Stockholders' Equity, page F-16

Common Stock, page F-18

1. Please refer to prior comment 2. Since the common stock is not convertible and never included terms of conversion, application of or analogy to EITF 00-27 does not appear appropriate to this transaction. Please tell us why you did not treat the excess of the fair value of the common stock and warrants issued to the common shareholders over the fair value of the consideration given as a common stock dividend. Tell us what other accounting literature you considered.
2. Please refer to prior comment 2. We note your acknowledgement that the charge should be recorded as a common stock dividend and not as a preferred stock dividend. Please revise your filings to correct this error, or tell us in detail why you believe that a restatement is not required.
3. We have reviewed your response to prior comment 3. However, we are unable to agree with your conclusion that a transaction that was started via a registration statement filed in the United States can be completed without registration in reliance on Regulation S.
4. As previously noted in prior comment 4, if U.S. Securities Laws implicitly require settlement in registered shares because the company will not be able to find an exemption from registration and therefore settling in unregistered (or restricted) shares would be a violation of U.S. Securities laws, then the company is obligated to deliver registered shares upon exercise and settlement of the warrant and the warrants would not qualify for equity classification under EITF 00-19 because there are further registration and prospectus delivery requirements that are outside of the control of the company.
5. Please refer to prior comment 5. We continue to believe that whether or not the consideration was fixed or variable, the measurement period should never include any dates after the date the business combination is consummated since the market value of the common stock of the company as of any dates following the consummation would necessarily include the value of both the company and the target. Please tell us whether the valuation would have changed by a material amount if you had not extended the measurement period to any dates after the consummation of the combination.

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Note 15. Inovio AS Acquisition, page F-25

6. Please refer to prior comment 6. Please clarify in future filings, similar to your response, that the company used the royalty savings method based upon company specific factors, and not industry averages, to value the IPR&D.

Form 10-Q for the Quarterly Period Ended September 30, 2007

Financial Statements, page 3

Note 4. Stockholders' Equity, page 7

Common stock, page 12

7. Please tell us how you are accounting for the registered warrants and why. Tell us how you evaluated the warrants under SFAS 133 and EITF 00-19.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. 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.

You may contact Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 or me at (202) 551-3554 if you have any questions regarding comments on the financial statements and related matters. You may also contact Martin James; Senior Assistant Chief Accountant, at (202) 551-3604 with any other questions.

Sincerely,

Angela Crane
Branch Chief