

Via Facsimile and U.S. Mail
Mail Stop 6010

August 15, 2006

Mr. Evan Myrianthopoulos
Chief Financial Officer
Dor Biopharma, Inc.
1691 Michigan Avenue, Suite 435
Miami, FL 33139

**Re: Dor Biopharma, Inc.
Form 10-KSB for the Fiscal Year Ended December 31, 2005
Filed March 31, 2006
Form 10-QSB for the Fiscal Quarter Ended June 30, 2006
Filed August 14, 2006
File No. 000-16929**

Dear Mr. Myrianthopoulos:

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 document. Where indicated, we think you should revise your document in response to our 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 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-KSB for the Fiscal Year Ended December 31, 2005

Management's Discussion and Analysis or Plan of Operation

Material Changes in Results of Operations

1. Please provide us with additional information, in a disclosure-type format, that clarifies why you appear to have recognized \$285,891 in revenue that relates to fiscal 2004 during the year ended December 31, 2005 when you received the actual cash reimbursement.
2. We acknowledge your table included in the section entitled "Summary of Our Products in Development," as well as the information included in your "Material Results of Operations" discussion. However, we believe that your disclosures about historical research and development expenses and estimated future expenses related to your major research and development projects could be enhanced for investors. Please refer to the Division of Corporation Finance "Current Issues and Rulemaking Projects Quarterly Update" under section VIII – Industry Specific Issues – Accounting and Disclosure by Companies Engaged in Research and Development Activities. You can find it at the following website address: <http://www.sec.gov/divisions/corpfin/cfcrq032001.htm#secviii>.

Please then provide us with the following information, in a disclosure-type format, for each of your major research and development projects:

- a. The costs incurred during each period presented and to date on the project;
- b. The nature, timing and estimated costs of the efforts necessary to complete the project;
- c. The anticipated completion date;
- d. The risks and uncertainties associated with completing development on schedule and the consequences to your operations, financial position and liquidity if the project is not completed timely; and, finally
- e. The period in which material net cash inflows from your significant projects are expected to commence.

Regarding a., if you do not maintain research and development costs by project, please tell us why management does not maintain and evaluate research and development costs by project. Include other quantitative or qualitative analyses that indicate the amount of the company's resources being used on these projects.

Regarding b. and c., please provide us with the amount or range of estimated costs and timing to complete the phase in process and each future phase. To the extent that information is not estimable, please tell us the facts and circumstances indicating the uncertainties that preclude you from making a reasonable estimate.

Financial Condition, page 44

3. In Item 1, "Description of Business," you discuss your various license agreements and disclose that you are required to pay certain annual "license royalty" and other "maintenance" fees pursuant to those agreements. For example, you disclose that you are obligated to pay a \$50,000 annual fee pursuant to your agreement with the University of Texas Southwestern Medical Center and a \$60,000 fee pursuant to your agreement with Southern Research Institute/University of Alabama. Please provide us with additional information that clarifies why you did not disclose your various payment obligations under these license agreements in your contractual obligations table or revise your filing accordingly. Please refer to Financial Reporting Release No. 67, *Disclosure in Management's Discussion and Analysis About Off-Balance Sheet Arrangements and Aggregate Contractual Obligations*, as applicable.

Notes to Consolidated Financial Statements

Note 2. Summary of Significant Accounting Policies

Intangible Assets

4. Based on your disclosure in "Critical Accounting Policies," it appears that you capitalize certain license costs. Please provide us with additional information, in a disclosure-type format, that quantifies the amount of your intangible asset balance that relates to license costs as of December 31, 2005 and tell us whether you capitalized the various payments made pursuant to the agreements discussed in Note 5. For example, tell us whether you capitalized the \$400,000 up-front fee pursuant to your UTSW agreement and the \$175,000 payment to "a pharmaceutical company," both of which you made in July 2003. Additionally, clarify how your accounting policy decision to capitalize license costs under each of your agreements complies with paragraph 11 c. of SFAS No. 2. Specifically state what, if any, alternative future use exists in each instance that you capitalized an up-front license fee.
5. Based on your disclosure herein and in "Critical Accounting Policies," it appears that you recognize intangible assets for the filing/maintenance and legal defense of your patent rights. We believe that these items should be expensed as incurred in accordance with paragraph 10(i) of SFAS 2. Please tell us why your accounting policy is appropriate or revise your financial statements accordingly.

Revenue Recognition

6. Please provide us with additional information, in a disclosure-type format, that clarifies your revenue recognition policy, both herein and in your "Critical

Accounting Policies” discussion in the MD&A. Specifically, disclosing that you record grant revenue in the “period when earned” is vague in that it does not clarify whether you record grant revenue in relation to the expenses that you incur.

Note 7. Shareholders’ Equity

Common Stock

7. Please provide us with your analysis, in a disclosure-type format, as to whether the warrants issued in your February 2005 and March 2004 private placement transactions qualify as a derivative instrument within the scope of SFAS No. 133, which would necessitate that you account for those warrants at fair market value and record changes in that fair market value within earnings. Specifically, please address if the warrants have any cashless exercise features. Additionally, please provide us with an analysis under EITF No. 00-19 that supports your classification of these warrants as an equity instrument. Lastly, provide similar information for the warrants issued in your April 10, 2006 private placement transaction, as disclosed in your June 30, 2006 Form 10-QSB.

Stock Compensation to Non-Employees

8. Please provide us with additional information, in a disclosure-type format, that clarifies your accounting treatment with respect to the 2004 option grants to non-employees and directors for which you recorded approximately \$285,000 in expense that you subsequently reversed and recorded as income during the fiscal year ended December 31, 2005. In so doing, please refer to the applicable provisions of EITF No. 96-18 or other literature to support your treatment. Additionally, please tell us why you felt a “measurement date” did not exist at the “approval date,” as it is unclear how approval attached to these grants if they were contingent upon an amendment to the underlying option plan. Please also reconcile your disclosure in Note 7 regarding the measurement date to the disclosure under “Material Changes to Results of Operations” regarding variable accounting.

Form 10-QSB for the Fiscal Quarter Ended June 30, 2006

Notes to Condensed Consolidated Financial Statements (Unaudited)

Note 7. Contingencies

9. Please provide us with additional information, in a disclosure-type format, that clarifies why you do not believe you are required to pay Gastrotech Pharma A/S the \$1 million break-up fee that resulted from your decision not to renew your

letter of intent to acquire Gastrotech Pharma. Please correlate your explanation to SFAS No. 5, as applicable.

* * * *

Please provide us the information requested within 10 business days of the date of this letter or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a letter with your responses that keys your responses to our comments. Detailed letters greatly facilitate our review. You should file the letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your 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 they have provided 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 Amy Bruckner, Staff Accountant, at (202) 551-3657 or Mary Mast, Senior Accountant, at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant