

Mail Stop 6010

August 25, 2006

Via Facsimile and U.S. Mail

Mr. Walter Witoshkin  
Chief Executive Officer  
QuantRx Biomedical Corporation  
100 S. Main Street, Suite 300  
Doylestown, PA 18901

**Re: QuantRx Biomedical Corporation  
Form 10-KSB for the year ended December 31, 2005  
Filed March 31, 2006  
Form 10-QSB for the period ended June 30, 2006  
File No. 0-17119**

Dear Mr. Witoshkin:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. 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 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 year ended December 31, 2005**

Management's Discussion and Analysis

Critical Accounting Policies, page 14

1. We note the summarized discussion and the reference to Note 2 of the financial statements. As outlined in SEC Release 34-48960, this discussion is intended to supplement the policies disclosed in the notes and provide greater insight into the quality and variability of estimates used in presenting your results. In future filings, please revise this section to include a separate discussion of each of your critical accounting estimates. For each critical accounting estimate, address the following:
  - Describe the methodology underlying each critical accounting estimate.
  - Identify where and how each critical accounting estimate affects the company's reported financial results, financial condition and changes in financial condition, and when material, identify the affected line items.
  - Discuss, if applicable, why you could have chosen in the current period estimates that would have had a materially different impact on your financial presentation.
  - Discuss, if applicable, why the accounting estimate may change in future periods and describe the impact on your financial statements.
2. As a related matter, we note that the following accounting policies appear to be important to the portrayal of your results and also appear to require managements' complex judgments. Accordingly, in future filings please refer to Release 34-48960 and consider including a discussion of the following critical accounting estimates:
  - a) Revenue recognition
  - b) Impairments of long-lived assets
  - c) Depreciation and amortization of fixed assets and intangibles, and
  - d) Share-based Payments.

Financial Statements

General

3. We note the reference to your licensing agreement with Branam Medical on page 5 and in MD&A. Tell us and include a note to the financial statements in future filings that discloses the material terms of this agreement, including the rights acquired by Branam, any on-going obligations you have under the agreements, the length of the agreement, the

consideration you received, and how and when you will receive that consideration. Revise the revenues recognition section of Note 1 to disclose how you recognize revenue from that arrangement and to specifically describe the events that indicate when the revenue recognition criteria outlined in SAB Topic 13 are met.

4. Similarly, we note the reference to a technology evaluation agreement with Martin Diagnostics. Tell us and revise the notes to financial statements in future filings to disclose the material terms of the agreement. Clearly describe your obligations under the agreements, the services or rights acquired by Martin Diagnostics, the period of time over which you are required to perform the service, the consideration you received and the manner and timing of payment. Revise the revenues recognition section of Note 1 to disclose how you recognize revenue from that arrangement and to specifically describe the events that indicate when the revenue recognition criteria outlined in SAB Topic 13 are met.

Note 2: Summary of Significant Accounting Policies

Accounting for Stock-Based Compensation, page F-8

5. Tell us and revise the note in future filings to disclose the date on which you adopted SFAS 123 ( R) and the adoption and transition methods – i.e., retrospective, prospective, modified prospective, etc. - you selected.

Derivative Instruments, page F-9

6. Your statements that the company carried bifurcated embedded derivatives in its balance sheet as equity do not appear consistent with the guidance in SFAS 133 which requires you to account for all derivatives to be carried at fair value. Tell us whether the derivatives to which you refer here and in Note 4 represent the beneficial conversion feature related to the convertible notes.
7. Similarly, your statements, that SFAS 133 and EITF 00-19 require you to bifurcate the conversion option and separately account for it as a derivative, appear to contradict the disclosure in the preceding sections indicating that you calculated and recorded a beneficial conversion feature on the same note since you would only record a beneficial conversion feature after concluding that the conversion option should not be bifurcated.
  - Please provide us with a clear description of how you accounted for the convertible notes you issued in December 2005 and in February 2006. For each issuance, provide us with your analysis of the debt and warrants pursuant to SFAS 133, EITF 00-19, EITF 98-5 and EITF 00-27.

- Clarify your use of such terms as “equity derivative” and “non-conventional debt” by citing the literature on which you are relying. For example, tell us whether the term “non-conventional” debt, as disclosed, is consistent with the meaning used in EITF 05-02 and, if so, describe the debt terms that results in the debt being considered non-conventional.

Note 7: Capital Stock - Common Stock, page F18

8. We note that in the fourth quarter of 2005 you issued shares of common stock to settle outstanding debt in the amounts of \$400,000, \$15,000, and \$4,000. We further note that the shares were issued at \$0.44, \$0.44, and \$0.05 per share, respectively, at a period when your stock traded between \$0.95 and \$2.00 per share, as disclosed on page 12.
- Please provide us with a schedule showing the amounts of share-based payments you expensed as a result of each transaction and how the amounts were calculated.
  - Tell us how you presented the amounts in your financial statements.
  - If no share-based payments were recorded, please explain why.

**Form 10-QSB for the period ended June 30, 2006**

Note 8: Investments - FluoroPharma, Inc., page 13

9. We note your transactions with FluoroPharma in the first six months of 2006. Please provide us with a description of how you accounted for the transactions and provide us with your allocation of the purchase price of the investments that resulted in goodwill being recorded.
10. Tell us the type of consideration you paid to acquire the additional interests in FluoroPharma amounting to \$1,566,023 and \$429,000, and tell us how you reflected the amounts on your statements of cash flow.
11. In addition, please describe to us the transactions that resulted in the investing cash inflow of \$566,023 presented in the statement of cash flow caption “increase in payables relating to investment acquired.” Tell us why an increase in accounts payable would result in cash inflows from investing activities.

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As appropriate, please respond to these comments within 10 business days or tell us

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when you will provide us with a response. Please furnish a cover letter with your response 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.

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 and 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 writing, 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 David Burton, Staff Accountant, at (202) 551-3626 or me at (202) 551-3671 if you have questions regarding these comments.

Sincerely,

Martin F. James  
Senior Assistant Chief Accountant