



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

July 22, 2008

VIA U.S. MAIL and FACSIMILE

Gregory D. Brown
Chief Financial Officer
BioForce Nanosciences Holdings, Inc.
1615 Golden Aspen Drive
Suite 101
Ames, Iowa 50010

**RE: BioForce Nanosciences Holdings, Inc.
Form 10-KSB for the fiscal year ended December 31, 2007
Form 10-QSB for the quarter ended March 31, 2008
File No. 000-51074**

Dear Mr. Brown:

We have reviewed your filing and have the following comments. We have limited our review of your filing 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 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 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, 2007

Item 8A Controls and Procedures, page 26

1. While it appears that your officers conducted an evaluation of disclosure controls and procedures as of December 31, 2007, we do not see a conclusion about the effectiveness of those controls and procedures. Please amend your filing to clearly and unequivocally state whether disclosure controls and procedures, as defined in the Exchange Act Rule 13a-15(e), are effective or are not effective as of the end of the fiscal year covered by the annual report. In addition, please consider whether management's failure to perform or complete its report on internal control over financial reporting impacts its conclusions regarding the effectiveness of your disclosure controls and procedures *as of the end of the fiscal year* covered by the report and revise your disclosure as appropriate.

Item 8A(T) Management's Report on Internal Control Over Financial Reporting, page 26

2. While it appears that you have conducted an evaluation of internal control over financial reporting as required by Exchange Act Rules 13a-15 and 15d-15, it does not appear that you have disclosed your conclusion as required by Item 308T(a)(3) of Regulation S-B. Please amend your filing to provide management's conclusion as to the effectiveness of internal control over financial reporting. That is, please revise to clearly and unequivocally state whether internal control over financial reporting is effective or is not effective as of the end of the fiscal year covered by the annual report.

Financial Statements

Report of Independent Registered Public Accounting Firm, page F-1

3. Please revise the second paragraph of the audit report to spell out the full name of the PCAOB.

Consolidated Statements of Stockholders' Equity, page F-5

4. Please provide us a reconciliation of the amounts attributed to issuance of Series A convertible preferred stock for cash and issuance of stock purchase warrants for cash to the corresponding amounts presented on the statement of cash flows. Similarly respond with respect to the issuance of common stock for cash in 2006.
5. Please tell us why the amounts of stock-based compensation do not agree to the corresponding amounts presented on the statement of cash flows.

6. Please revise so that Accumulated Deficit and Total Stockholders' Equity as of December 31, 2007 agree to the corresponding balances presented on the Consolidated Balance Sheet.

Note E, Common Stock Warrants and Options, page F-15

Warrants, page F-15

7. It appears that you have granted warrants in financing arrangements and in exchange for non-employee services. The policy disclosure in this footnote and elsewhere in your document only addresses transactions with employees. In future filings please expand to provide a policy disclosure for equity instruments granted to other than employees. Please refer to EITF 96-18, EITF 00-18 and EITF D-90. Show us how you intend to apply this comment.
8. We see the significant number of warrants issued in the periods presented. In future filings please provide a description of the transactions leading to the issuance of warrants, including specific disclosure of the fair value assigned and of the accounting applied. Please also expand to provide disclosure about all significant terms and conditions of warrants. For instance, address circumstances that may lead to changes in the number of warrants or exercise prices, the terms and provisions of cashless exercise features and of anti-dilution features, registration obligations and liquidated damages provisions. Show us how you intend to apply this comment.

Options, page F-17

9. Your disclosures about stock options do not appear to include all of the relevant matters from SFAS 123(R). In future filings please expand to make all relevant disclosures from paragraphs A240 and A241 of SFAS 123(R). Show us how you intend to apply this comment.

Note I, Issuance of Series A Convertible Preferred Stock, page 20

10. Please expand future filings to make disclosure about all pertinent terms and provisions of the preferred shares. Refer to paragraph 4 of SFAS 129. Show us how you intend to apply this comment.

Form 10-QSB for the quarter ended March 31, 2008

Consolidated Statement of Cash Flows, page 8

11. We see that proceeds from factored trade accounts receivable are reported as sales and are classified as financing activities. Since these proceeds are directly related to sales of goods and services to your customers, please tell us why that classification is appropriate under paragraph 22 of SFAS 95.
12. Please also tell us why it is appropriate to account for factored receivables as sales. Tell us how your accounting considers the guidance from paragraphs 9 and 133 of SFAS 140.

Exhibits, page 18

13. Please revise the Principal Executive Officer and Principal Financial Officer certifications to include the introductory language of paragraph 4 and the language of paragraph 4(b) of Item 601(b)(31) of Regulation S-K. Appropriately amend the filing.

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

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- 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 me at (202) 551-3605 if you have questions regarding these comments. Please do not hesitate to contact Brian Cascio, Accounting Branch Chief, at (202) 551-3676 with any other questions.

Sincerely,

Gary Todd
Reviewing Accountant