



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

Mail Stop 3030

January 5, 2010

VIA U.S. MAIL

Mr. David Bruce Hong
Chief Executive Officer and Chief Financial Officer
Biofield Corp.
1615 Walnut Street, 3rd Floor
Philadelphia, PA 19102

RE: Biofield Corp.
Form 10-K for the Fiscal Year Ended December 31, 2008
Forms 10-Q for the Quarterly Periods Ended March 31, 2009, June
30, 2009 and September 30, 2009
File No. 000-27848

Dear Mr. Hong:

We have reviewed your filings and correspondence dated December 21, 2009 and have the following comments. Where indicated, we think you should revise and amend your filings 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 comment or on any other aspects 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, 2008

Consolidated Statement of Stockholders' Deficit, page F-5

Note 12 – Stockholders' Equity, page F-21

1. We note your response to our prior comment 3. Please tell us the reason that you have included the stock awards listed in the table in the response and how these amounts agree with the 19.2 million shares valued at \$8.7 million discussed on page 21. In addition, tell us how you valued and accounted for the common and preferred stock issued upon the debt conversion.

Exhibits 31.1 and 32.1

2. We note that the certifications filed in your Form 10-K amended on December 22, 2009 are not properly dated. Please amend your filing to include properly dated certifications along with all the required items of your annual report.

Form 10-Q for the Quarterly Period Ended September 30, 2009

Item 4T. Controls and Procedures, page 12

3. We note the disclosure under Changes in Internal Control Over Financial Reporting that management conducted “an evaluation of Biofield’s internal controls over financial reporting...” during the third fiscal quarter. As we note that you are only required by Item 308 and 308(T) of Regulation S-K to provide management's assessment of the effectiveness of your internal control over financial reporting as of the end of your most recent fiscal year, please tell us whether such an assessment was performed as of September 30, 2009 and, if so, revise to provide a clear conclusion of the *effectiveness* of internal control over financial reporting as described in Exchange Act Rules 13a-15(f) and 15d-15(f). Otherwise, please revise to remove the disclosure regarding the evaluation or assessment of internal control over financial reporting as of September 30, 2009.
4. We also note the discussion on page 12 that “as a result of this conclusion, the Company initiated changes in internal control.” Please revise to discuss the specific changes in internal control made during the third fiscal quarter.

Exhibits 31.1 and 32.1

5. We note that you omitted a portion of the introductory language in paragraph 4 of Item 601(b)(31)(i) of Regulation S-K and that you omitted paragraph 4(b) of Item 601(b)(31)(i) of Regulation S-K, both of which refer to internal control over financial reporting. Please file an amendment to the Form 10-Q for the third quarter of fiscal 2009 to include certifications that include the required paragraphs.

Other

6. We note that your response did not include the written statements from the company acknowledging the bulleted items in the September 14, 2009 comment letter. Please include these acknowledgements in your response.

As appropriate, please amend your filings and 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.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or me at (202) 551-3676 if you have questions regarding these comments. You may also contact Martin F. James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Brian R. Cascio
Accounting Branch Chief