

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549-3561

DIVISION OF

CORPORATION FINANCE

September 23, 2010

Mr. Peter H. Nielsen Chief Executive Officer Bio-Path Holdings, Inc. 3293 Harrison Boulevard, Suite 220 Ogden, UT 84403

Re: Bio-Path Holdings, Inc.

Form 10-K for Fiscal Year Ended December 31, 2009

Filed March 31, 2010 File No. 000-53404

Dear Mr. Nielsen:

We have reviewed your filing 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 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.

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Form 10-K for Fiscal Year Ended December 31, 2009

Item 9A. Controls and Procedures, page 41

1. We note your disclosure that your management, including your principal executive officer, principal operations officer and principal financial officer, reviewed and evaluated the effectiveness of your disclosure controls and procedures as of a date within ninety (90) days of the filing date of your Form 10-K. Please note that you are required to perform this evaluation as of the end of the period covered by the report. Please revise to perform your evaluation of your disclosure controls and procedures as of the end of the period covered by this report and amend your filing to disclose the conclusions of your principal executive and principal financial officers, or persons performing similar functions, regarding such effectiveness as of the end of the period covered by this report. Refer to Item 307 of Regulation S-K.

Form 10-Q for the Period Ended June 30, 2010

Part I. Item 4T. Controls and Procedures, page 17

2. We note that your executive officers have concluded that your disclosure controls and procedures are effective and designed to ensure that the information relating to your company required to be disclosed in your reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the requisite time periods. It is unclear from this disclosure whether you determined that your disclosure controls and procedures as defined in Exchange Act Rule 13a-15(e) were effective, as your conclusion only addresses a partial definition of disclosure controls and procedures. Please revise future filings to either provide the entire definition of disclosure controls and procedures in your conclusion, similar to the disclosure in your Form 10-K, or to conclude that your disclosure controls and procedures are effective or ineffective without providing any part of the definition of disclosure controls and procedures.

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.

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

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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 Sondra Snyder at (202) 551-3332 or me at (202) 551-3737 if you have questions regarding the comments or any other matters.

Sincerely,

Jennifer Thompson Branch Chief