



DIVISION OF
CORPORATION FINANCE

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

June 30, 2010

Mr. Stephen T. Lundy
Chief Executive Officer
AspenBio Pharma, Inc.
1585 South Perry Street
Castle Rock, Colorado 80104

Re: AspenBio Pharma, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed March 9, 2010
Form 10-K/A for the Fiscal Year Ended December 31, 2009
Filed April 28, 2010
File No. 001-33675

Dear Mr. Lundy:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may have additional comments and/or request that you amend your filings.

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

Item 1. Business, page 2

1. Please revise your disclosure in this section to provide the information required by Item 101(c)(1)(vii) regarding dependence upon a single customer. We note your disclosure on page 30 of your filing that in 2009, two customers accounted for \$105,000 of total sales of antigens for 2009, and individually represent 17% and 20% of such sales. Please revise your disclosure to identify these customers. If you have any agreements related to the sales of your products with these customers, please disclose the material terms of these agreements, including each parties' material rights and obligations, and any duration and termination provisions. In addition, please file these agreements as

exhibits to your filing, or provide us with a legal analysis as to why these agreements need not be filed pursuant to Item 601(b)(10) of Regulation S-K.

Clinical and Product Development – Appendicitis, page 4

2. We note your disclosure on page 5 that you signed a manufacturing agreement with LRE in February 2010 to manufacture the instruments necessary for the AppyScore product. Because your business is now focused on the development of AppyScore, it appears that you may be substantially dependent upon this manufacturing agreement. We note that you have not included the manufacturing agreement as an exhibit to this Form 10-K, a Form 8-K, or to the Form 10-Q for the Fiscal Quarter Ended March 1, 2010. Please discuss the material terms of this agreement, such as each parties' rights and obligations including payment obligations, and any termination provisions. Please further confirm that you will file this agreement as an exhibit to your Form 10-Q for the Fiscal Quarter Ended June 30, 2010, or provide us with a legal analysis as to why this agreement need not be filed pursuant to Item 601(b)(10) of Regulation S-K.

Product Overview, page 7

Recombinant Analog Drugs for Animal Reproduction, page 9

Single-Chain Gonadotropin Technology Breakthrough – Recombinant LH and FSH, page 9

3. We note that you have an exclusive license agreement with Dr. Irving Boime of The Washington University at St. Louis for use of the single-chain technology. Please revise your description of this agreement to disclose the following information:
 - All material rights and obligations of the company and the other party;
 - The range of royalty rates (for example, “low-single-digits,” “high-single-digits,” etc.);
 - The aggregate amount of milestone or other payments payable or receivable to each party, and the amounts paid to date; and
 - Duration and termination provisions.

In addition, we note that you have not filed this license agreement as an exhibit to your Form 10-K. Please file this agreement as an exhibit, or provide us with a legal analysis as to why this agreement need not be filed pursuant to Item 601(b)(10) of Regulation S-K.

Licensing Agreements for Animal Drugs, page 10

4. We note that in April 2008 you entered into a license agreement with Novartis Animal Health to develop and launch your recombinant single-chain bovine products. Please expand your description of this agreement to disclose the following information:
 - All material rights and obligations of the company and the other party;

- The range of royalty rates (for example, “low-single-digits,” “high-single-digits,” etc.);
- The aggregate amount of milestone or other payments payable or receivable to each party, and the amounts paid to date; and
- Duration and termination provisions.

Intellectual Property, page 14

5. We note that you have entered into an assignment and consultation agreement with Dr. John Bealer related to the appendicitis diagnosis technology. Please revise your description of this agreement to disclose the following information:
 - All material rights and obligations of the company and the other party;
 - The range of royalty rates (for example, “low-single-digits,” “high-single-digits,” etc.); and
 - Duration and termination provisions.
6. Please include a more robust discussion of your material patents, including whether they are owned or licensed, which product groups they relate to, the expiration dates for each, and the jurisdictions in which they were granted. See Item 101(c)(1)(iv) of Regulation S-K for guidance.

Management’s Discussion and Analysis of Financial Condition and Results of Operations

Total Contractual Cash Obligations, page 36

7. The disclosure of your long-term debt contractual cash payments presented in the table does not agree with the terms of the debt described in footnote (a). In particular, the table shows payment obligations after 2013, while footnote (a) states that “the loan requires total monthly payments of approximately \$23,700 through June 2013, when the then remaining principal balance is due.” Also, we were unable to determine the relationship between the payment obligations shown in the table and the monthly payment amount shown in footnote (a). Please revise your disclosure accordingly. Disclose all significant terms of the bank loan that matures in 2013 and the SBA loan that matures in 2023. In addition, revise the amounts in the table to include contractual mortgage interest as part of the contractual cash payments. This comment also applies to your disclosure in the Liquidity and Capital Resources section of MD&A and in Note 5 to the financial statements.
8. Please revise the table to include all license fee payment obligations to the University of Washington.

Financial Statements, page 42

Notes to Financial Statements, page 47

9. Commitments and Contingencies, page 63

9. You recognize up-front license fees received from your agreement with Novartis Animal Health, Inc. net of amounts due to the University of Washington. Please tell us your basis under GAAP to present revenues relating to your agreement with Novartis Animal Health, Inc. net of expenses relating to your agreement with the University of Washington. Also, explain to us how you determined deferred revenue, amounting to \$813,947 as current liabilities and \$634,145 as non-current liabilities.
10. Please disclose the period over which you are amortizing the license fees received under your agreement with Novartis Animal Health, Inc. and explain how this period is consistent with \$63,947 amortized in 2009 and the remaining life of the underlying patents disclosed on page 15.

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

11. We note that you have not included any disclosure in response to Item 402(s) of Regulation S-K. Please advise us of the basis for your conclusion that disclosure is not necessary and describe the process you undertook to reach that conclusion.

Executive Compensation, page 14

Compensation Discussion and Analysis, page 14

12. We note your disclosure on page 14 that information obtained from the Radford Global Life Sciences Survey of compensation in 2009 was used in summary form as benchmarking information for your compensation considerations. However, your discussion of base salaries and annual incentive awards on page 15 does not describe how you use the information obtained from the survey. Please revise your disclosure to describe how you specifically used the survey in your determination of NEOs' compensation. For example, if you target an element of your compensation to a percentage of peer companies' compensation practices as reflected in the survey, please so disclose.

Base Salary, page 15

13. We note your disclosure on page 15 that the annual salaries of Mr. McGonegal and Dr. Colgin were increased for 2009 after taking into account the evaluations provided by the Chief Executive Officer, the operating and financial results for the year, a subjective assessment of the contribution of each NEO to such results, the achievement of your strategic growth, and any changes in the NEOs' roles and responsibilities. The base salaries of Mr. McGonegal and Dr. Colgin increased by different amounts and percentages. Please revise your disclosure to discuss the specific factors, results, and

circumstances that the Compensation Committee took into account when increasing base salaries for each NEO.

Annual Incentive Plan, page 15

14. Please revise your disclosure to provide more information about how the Compensation Committee determines the size of a bonus award, in general. For example, if the board creates a bonus pool based upon the achievement of certain corporate objectives, please so disclose. If the maximum bonus award that an NEO may receive is based upon a percentage of his or her base salary, please so disclose.
15. We note your disclosure that the company's annual incentive plan for NEOs, other than Mr. Faulkner, considers the achievement of corporate goals when awarding cash bonuses. Please revise the disclosure in your Compensation Discussion and Analysis to provide the following:
 - The corporate performance objectives; and
 - A discussion of how the level of achievement of each objective affected the actual bonuses to be paid.

To the extent that the objectives are quantitative, the discussion should also be quantitative.

16. We note your disclosure on page 15 that in addition to the achievement of corporate objectives, the Compensation Committee considers how each NEO's individual performance may have impacted the achievement of performance goals during the year. Please revise your disclosure to indicate the portion of the bonus attributable to the achievement of corporate objectives, and the portion of the bonus attributable to individual objectives.
17. Based upon your disclosure on page 15, it appears that the bonus determinations were based, in part, upon individual objectives achieved by each NEO. Your Compensation Discussion and Analysis does not disclose the individual objectives used to determine these executive officers' annual performance-based bonus. Please revise your disclosure to provide the following:
 - The individual performance objectives; and
 - A discussion of how the level of achievement of each objective affected the actual bonuses to be paid.

To the extent that the objectives are quantitative, the discussion should also be quantitative.

Long-term equity awards, page 15

18. We note your disclosure on page 16 that the Board of Directors made annual stock option awards to the NEOs in January 2009. Please revise your disclosure to discuss the

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material factors that the Board of Directors considered in determining the size of the equity award for each NEO.

Agreements with Executive Officers Entered After the End of our Fiscal Year, page 22

19. We note your disclosure that you have entered into an employment agreement with Mr. Lundy on March 24, 2010. We further note that this agreement was filed as an exhibit to a Form 8-K filed March 26, 2010. Please confirm that you will incorporate this employment agreement by reference in future filings.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

Please contact Frank Wyman, Staff Accountant, at (202) 551-3660 or Don Abbott, Senior Staff Accountant, at (202) 551-3608, if you have any questions regarding the processing of your response, as well as any questions regarding comments on the financial statements and related matters. You may contact Rose Zukin, Staff Attorney, at (202) 551-3239 with questions on any of the other comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant