



DIVISION OF
CORPORATION FINANCE

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

July 19, 2011

Via E-mail

Dr. Barry Quart
President and Chief Executive Officer
Ardea Biosciences, Inc.
4939 Directors Place
San Diego, CA 92121

**Re: Ardea Biosciences, Inc.
Form 10-K for the Year Ended December 31, 2010
Filed March 11, 2011
File No. 001-33734**

Dear Dr. Quart:

We have limited our review of your filing to those issues we have addressed in our comments. In our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within 10 business days by providing the requested information or by advising us when you will provide the requested response. 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 raise additional comments and/or request that you amend your filing.

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

Results of Operations

Years Ended December 31, 2010 and 2009

Research and Development Expenses, page 31

1. The disclosure on page 29 appears to indicate that you track your outsourced research and development services by project. Please provide us proposed disclosure to be included in future periodic filings to separately quantify the outsourced research and development expenses by project and remaining expenses by the type of cost incurred for the periods presented. The sum of these separately quantified expenses should agree to the research and development expenses presented on your statements of operations.

Liquidity and Capital Resources

2. Please provide us proposed disclosure to be included in future periodic filings to clarify whether your milestone obligations are included in the contractual obligations table. At a minimum, provide in your proposed disclosure a footnote to the contractual obligations table that quantifies the aggregate amount of milestones that you may be obligated to pay in the future and the types of event that would trigger those payments.

Notes to Consolidated Financial Statements

Note 8 – Bayer Relationship, page F-18

3. Please provide us an analysis, at each quarter and year-end date that financial statements were issued, that supports your use of a 13, 26 and 38 month period, as applicable, starting with the second quarter of 2009 through the first quarter of 2011. In your analyses, address how you considered the applicable terms in the agreement that could affect the period used.
4. You disclose that Bayer notified you during the fourth quarter that the first milestone for BAY 86-9766 had been achieved and that as a result you accrued \$15 million for the milestone as revenue and that in the fourth quarter of 2010 you early adopted the provisions of ASU 2010-17, Revenue Recognition – The Milestone Method. Please address the following:
 - Provide us with your analysis that supports the recognition of this milestone, including the specific milestone achieved and the facts and circumstances most relevant to your accounting for this transaction;
 - Tell us how your policy herein “Revenue from milestone payments will be recognized upon achievement of the milestone only if the milestone payment is nonrefundable, substantive effort is involved in achieving the milestone, the amount of the milestone is reasonable in relation to the effort expended or the risk associated with the achievement of the milestone and the milestone is at risk for both parties” complies with each of the three criteria in ASC 605-28-25-2;
 - Provide the disclosures required by ASC 605-28-50-2; and
 - Tell us how your policy in Note 2 Summary of Significant Accounting Policies – Revenue Recognition on page F-8 that “Revenue from milestones is recognized when earned, as evidenced by written acknowledgement from the collaborator or other persuasive evidence that the milestone has been achieved, provided that the milestone event is substantive and its achievability was not reasonably assured at the inception of the applicable agreement.” is consistent with that discussed in the second bullet above, and that what you refer to as milestones complies with all of the characteristics discussed in ASC 605-28-20.

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

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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 Kei Nakada, Staff Accountant, at (202) 551-3659 or Gus Rodriguez, Accounting Branch Chief, at (202) 551-3752, if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

/s/ Jim B. Rosenberg

Jim B. Rosenberg
Senior Assistant Chief Accountant