



DIVISION OF  
CORPORATION FINANCE

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

August 26, 2011

Via E-mail

Mr. John Beck  
Senior Vice President, Finance & Operations Chief Financial 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 Mr. Beck:

We have reviewed your response dated August 2, 2011 to our July 19, 2011 letter and have the following comments.

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. 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  
Liquidity and Capital Resources

1. We acknowledge your response to prior comment two. Please revise your proposed disclosure to include the aggregate amount of milestones that you may be obligated to pay in the future and the types of events that would trigger those payments under the contractual obligation table.

Notes to Consolidated Financial Statements  
Note 8 – Bayer Relationship, page F-18

2. We acknowledge your response to prior comment four. While a confidential treatment may have been granted in the past, please note that information, even if confidential, that is required must be disclosed. The milestone information previously requested under comment four is now required under U.S. GAAP. Accordingly, please provide a disclosure that describes each milestone, related contingent consideration, and whether

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you consider it substantive. Please refer to section IIB2 of our Staff Legal Bulletin Number One that addresses confidential treatment request of required disclosures.

3. Please address the second, third and fourth bullets in our previous comment four that you did not address, including how your accounting policy for milestones complies with the milestone revenue recognition method in ASC 605-28.

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