



DIVISION OF
CORPORATION FINANCE

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

September 19, 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 September 12, 2011 to our August 26, 2011 letter and have the following comment.

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 response to our comment.

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

Note 8 – Bayer Relationship, page F-18

1. Refer to your response to comment two. Please provide us an analysis of how the “contingent event-based consideration payments” meet the criteria of separate units of accounting under ASC 605-25-25-5.

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