



DIVISION OF
CORPORATION FINANCE

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

December 23, 2011

Via E-mail

Mr. David B. Johnston
Chief Financial Officer
AVEO Pharmaceuticals, Inc.
75 Sidney Street
Cambridge, MA 02139

**Re: AVEO Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 11, 2011
Form 10-Q for the Quarterly Period Ended September 30, 2011
Filed November 8, 2011
File No. 001-34655**

Dear Mr. Johnston:

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 documents. 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.

Form 10-Q for the Quarterly Period Ended September 30, 2011

Notes to Condensed Consolidated Financial Statements
(4) Collaboration and License Agreements, page 10

1. Please disclose the following regarding each collaboration and license agreement, as applicable:
 - A discussion of the significant factors, inputs, assumptions, and methods used to determine selling price (whether vendor-specific objective evidence, third-party evidence, or estimated selling price) for the significant deliverables in accordance with ASC 605-25-50-2e. In this regard, your current disclosure of key assumptions is too general and does not quantify the inputs;

- The effect of changes in either the selling price or the method or assumptions used to determine selling price for a specific unit of accounting if either one of those changes has a significant effect on the allocation of arrangement consideration in accordance with ASC 605-25-50-2h.;
- A description of each milestone and related contingent consideration in accordance with ASC 605-28-50-2b.; and
- The factors considered in determining whether the milestone or milestones are substantive in accordance with ASC 605-28-50-2d.

Astellas Pharma Inc.

2. You recognized \$120.2 million of a \$125 million payment received from Astellas as revenue in 2011. Please address the following:
- Provide us your analysis of each unit of accounting demonstrating how it had stand-alone value based on the requirements of ASC 605-25-25-5a.(i.e. sold separately by any vendor, or Astellas could resell the unit of accounting on a standalone basis).
 - You disclose that “All of these deliverables were deemed to have stand-alone value and to meet the criteria to be accounted for as separate units of accounting under ASC Topic 605-25. Factors considered in this determination included, among other things, the subject of the licenses and the research and development and commercial capabilities of Astellas.” Tell us how these factors you considered entered into your analysis of stand-alone value for each unit of accounting and complies with ASC 605-25-25-5a.
 - Provide us the computation supporting the recognition of \$120.2 million recognized as revenue in the three months ended March 31, 2011.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

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You may contact Christine Allen, Staff Accountant, at (202) 551-3652 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