



DIVISION OF
CORPORATION FINANCE

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

March 25, 2013

Via E-mail

Mr. Vikas Sinha
Executive Vice President and
Chief Financial Officer
Alexion Pharmaceuticals, Inc.
352 Knotter Drive,
Cheshire Connecticut 06410

**Re: Alexion Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2012
Filed February 19, 2013
File No. 000-27756**

Dear Mr. Sinha:

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

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 you provide in response to these comments, we may have additional comments and/or request that you amend your filings.

General

1. Please note that we intend to review the Part III information that you intend to incorporate by reference into your Form 10-K when filed. We may have further comments after reviewing that information and we will not be able to clear our review of your filing until we have the opportunity to resolve any resulting comments.

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

Critical Accounting Policies and the Use of Estimates
Revenue Recognition, page 48

2. Please provide us proposed disclosure to be included in future filings which separately breaks out the current provision for rebates related to sales made in the current period from the

current provision for rebates related to sales made in prior periods, or modify your disclosure to state, if true, that the adjustments to prior period estimates were immaterial to your results of operations.

Research and Development Expenses, page 50

3. Please provide us proposed disclosure to be included in future filings showing the effect of changes in the estimate for each period presented related to your clinical trial activity expenses by CROs, or disclose that changes in this estimate were historically not material to your results of operations.

Results of Operations

Comparison of the Year Ended December 31, 2012 to the Year Ended December 31, 2011
Net Product Sales, page 53

4. Regarding the \$350.7 million increase in net product sales, please provide us proposed disclosure to be included in future filings that separately, by geographic region, quantifies the amount of this increase due to aHUS versus PNH separately, by price and volume. Also include in your proposed disclosure the number of patients separately for aHUS and PNH as of the end of each period presented.

Notes to Consolidated Financial Statements

Note 9. Commitments and Contingencies

Contingent Liabilities, F-24

5. Please address the following related to your accounting for the change in your estimate for probable contingency liabilities that resulted in the recognition of a \$53 million “gain” on intellectual property settlement:
 - Provide us an accounting analysis supporting whether the “gain” represented a change in estimate of a loss contingency under ASC 450-20 or the derecognition of a liability under ASC 405-20-40, and why it was appropriate to recognize the “gain” in the third quarter of 2012.
 - If you believe the “gain” represented a change in estimate of a loss contingency under ASC 450, tell us why you characterized it as a gain on the face of the consolidated statements of operations.
 - If you consider the “gain” to be a derecognition under ASC 405-20-40, tell us why recognition in the third quarter of 2012 was appropriate when the settlement occurred in the fourth quarter of 2012.

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.

Mr. Vikas Sinha
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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.

You may contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Mary Mast, Senior Staff Accountant, at (202) 551-3613 if you have questions if you have questions regarding comments on the financial statements and related matters. Please contact Karen Ubell at (202) 551-3873 or John Krug, Senior Review Attorney at (202) 551-3862 with any other questions. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

/s/ Joel Parker for

Jim B. Rosenberg
Senior Assistant Chief Accountant