



VIA EDGAR

April 8, 2013

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, NE  
Washington, D.C. 20549

Attention: Jim B. Rosenberg

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

Ladies and Gentlemen:

Alexion Pharmaceuticals, Inc. ("Alexion") confirms that it is in receipt of a comment letter (the "Comment Letter") from the Staff (the "Staff") of the Securities and Exchange Commission, dated March 25, 2013, regarding the above-referenced filings of the Company. The Comment Letter requests that the Company respond within 10 business days or tell the Staff when the Company will respond. In order to fully respond to the Comment Letter, the Company believes it will need until April 15, 2013. The Company appreciates the Staff's willingness to allow for the additional time.

Please call the undersigned at (203) 271-8250 if you have any questions regarding this letter.

Very truly yours,

/s/ Scott Phillips

Scott Phillips  
Corporate Controller and Chief Accounting Officer

cc: Leonard Bell, Alexion Pharmaceuticals, Inc.  
Vikas Sinha, Alexion Pharmaceuticals, Inc.  
John Moriarty, Alexion Pharmaceuticals, Inc.  
Scott Phillips, Alexion Pharmaceuticals, Inc.  
Michael Greco, Alexion Pharmaceuticals, Inc.  
Patrick O'Brien, Ropes and Gray LLP