

Mail Stop 6010

April 28, 2009

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

**Re: Alexion Pharmaceuticals, Inc.
Form 10-K for the Year Ended December 31, 2007
Filed February 29, 2008
Form DEF 14A
Filed April 4, 2008
File No. 000-27756**

Dear Mr. Sinha:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

Sincerely,

Jeffrey P. Riedler
Assistant Director