



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

September 2, 2016

Via E-mail

Mr. Simon Dingemans  
Chief Financial Officer  
GlaxoSmithKline plc  
980 Great West Road  
Brentford, TW8 9GS  
England

**Re: GlaxoSmithKline plc**  
**Form 20-F for the Fiscal Year December 31, 2015**  
**Filed March 18, 2016**  
**File No. 001-15170**

Dear Mr. Dingemans:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 rules require.

Sincerely,

/s/ Sharon M. Blume

Sharon M. Blume  
Accounting Branch Chief  
Office of Healthcare and Insurance