

Via Facsimile and U.S. Mail
Mail Stop 6010

June 26, 2008

Mr. Julian Heslop
Chief Financial Officer
GlaxoSmithKline plc
980 Great West Road
Brentford, Middlesex TW8 9GS England

**Re: GlaxoSmithKline plc
Form 20-F for Fiscal Year Ended December 31, 2007
File No. 1-15170**

Dear Mr. Heslop:

We have reviewed your filing and have the following comments. 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 to better understand your disclosure. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 20-F for the year ended December 31, 2007

Financial Statements

Consolidated Income Statement, page 90

1. You disclosed "Business Performance", a non-IFRS measure, prominently on the face of your income statement and throughout your annual report in 2007.

Measures that are prohibited by Item 10(e) of Regulation S-K should not be added to the face of the primary financial statements unless expressly permitted under the GAAP used in the company's primary financial statements. We understand that paragraph 33 of the Financial Reporting Review Panel Preliminary Report on IFRS Implementation stated that non-IFRS measures should not be given undue prominence. Please tell us whether non-IFRS measures are expressly permitted under IFRS as adopted by the EU and as published by the IASB and cite for us the relevant authoritative literature.

If the non-IFRS measures are not expressly permitted please clarify to us how you meet the guidance in the note to paragraph (e) of Item 10(e) of Regulation S-K regarding the use of non-GAAP financial measures for a foreign private issuer or provide the disclosures required by Item 10 (e) of Regulation S-K. In addition, please clarify in the filing what costs are excluded from Business performance and why you believe it is appropriate to exclude them.

Statements of Cash Flows, page 92

2. As previously requested in our letter dated January 18, 2007 and confirmed by your letter dated January 31, 2007, please revise your Statements of Cash Flows to begin with profit after taxation. We do not believe it is appropriate to begin your Cash Flow Statement with Cash generated from operations.

Note 2 – Accounting Policies
Research and Development, page 95

3. You disclosed that development expenditure is capitalized when the criteria for recognizing an asset are met, usually when a regulatory filing has been made in a major market and approval is considered highly probable. Based on the significance of your research and development function, please disclose the following:
 - The types of regulatory filings that trigger the capitalization of product development expenditures;
 - The circumstances under which you capitalize development costs other than when a regulatory filing has been made and approval is considered highly probable; and
 - The annual amount of product development expenditures that have been capitalized.

Note 28 – Pensions and Other post-Employment Benefits, page 117

4. You disclosed that contributions to defined benefit schemes are determined in accordance with the advice of independent, professionally qualified actuaries. You also disclosed that pension costs of defined benefit schemes for accounting purposes have been assessed in accordance with independent actuarial advice, using the projected unit method and that pension liabilities are generally assessed annually in accordance with the advice of independent actuaries. Please tell us the intent of this reference to an actuary. While you are not required to indicate or infer that the actuaries determine your pension costs, when you do, you must also disclose their names. If you include their names in or incorporate them by reference into a 1933 Securities Act filing, you will also need to include the consents of the independent actuaries.

* * * *

Please provide us the information requested within 10 business days of the date of this letter or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a letter with your responses that keys your responses to our comments. Detailed letters greatly facilitate our review. You should furnish the letter on EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in your letter, a 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 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Mr. Julian Heslop
GlaxoSmithKline plc
June 26, 2008
Page 4

You may contact Gus Rodriguez, Staff Accountant at (202) 551-3752, or Mary Mast, Senior Accountant, at (202) 551-3613 if you have questions regarding these comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant