

Via Facsimile and U.S. Mail
Mail Stop 6010

August 13, 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 July 30, 2008 response to our June 26, 2008 letter and have the following additional comments. 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.

Financial Statements

Consolidated Income Statement, page 90

1. We acknowledge your response to prior comment 1. Although you now intend to omit the description of “business performance” as a “non-IFRS measure” from your future filings, your filing will continue to include this measure. Since this measure excludes restructuring expenses and significant acquisitions, it is a non-GAAP measure that is still subject to Item 10 of Regulation S-K. Please address the following for us:
 - Please cite for us relevant authoritative literature that expressly permit the disclosure of “non-IFRS measures” since paragraph 83 of IAS 1 only refers to the addition of line items, headings and totals as opposed to complete columns of “non-IFRS measures.”
 - Please address the question raised in our prior comment as to whether paragraph 33 of the Financial Reporting Review Panel Preliminary Report on

IFRS Implementation permits the undue prominence of “non-IFRS measures” on your income statement.

- Please clarify in the filing what revenues and costs are excluded from “business performance.”
- You disclosed that you believe that “business performance” gives a more useful indication of underlying performance. However, it is unclear how this measure is a useful indicator of performance to an investor since you make frequent acquisitions and it appears that the restructuring charges that are excluded are recurring operating expenses. Please provide enhanced disclosures of why it is meaningful to investors to exclude these revenues and costs from “business performance” and why the “business performance” measure provides useful information to an investor of your financial condition and results of operations.
- Please provide the disclosures required by Item 10(e) of Regulation S-K given that Form 20-F filers are required to comply with the requirements of Regulation S-K or tell us how you have complied with this regulation.

Statements of Cash Flows, page 92

2. We acknowledge your response to comment 2, but continue to believe as previously requested in our letter dated January 18, 2007 and confirmed by your letter dated January 31, 2007, that you should 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. In addition, the two beginning line items on your Cash Flow Statement do not agree with any line items on your Statements of Operations.

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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.

Mr. Julian Heslop
GlaxoSmithKline plc
August 13, 2008
Page 3

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