

GLAXOSMITHKLINE PLC  
Form 6-K  
September 10, 2010

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION  
Washington D.C. 20549

Report of Foreign Issuer

Pursuant to Rule 13a-16 or 15d-16 of  
the Securities Exchange Act of 1934

For period ending September 2010

GlaxoSmithKline plc  
(Name of registrant)

980 Great West Road, Brentford, Middlesex, TW8 9GS  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or  
will file annual reports under cover Form 20-F or Form 40-F

Form 20-F  Form 40-F

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Indicate by check mark whether the registrant by furnishing the  
information contained in this Form is also thereby furnishing the  
information to the Commission pursuant to Rule 12g3-2(b) under the  
Securities Exchange Act of 1934.

Yes No

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Notification of Transactions of Directors, Persons Discharging Managerial Responsibility or Connected Persons

I give below details of changes in the interests of Directors, Persons Discharging Managerial Responsibility or Connected Persons in the Ordinary shares of GlaxoSmithKline plc in respect of the under-mentioned persons arising from the purchase of Ordinary shares at a price of £12.71 per Ordinary share on 9 September 2010 through the Company's Share Reward Plan ("the Plan"):

Mr A P Witty Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr J S Heslop Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr S M Bicknell Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr E J Gray Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr S A Hussain Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr D S Redfern Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Ms C Thomas Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Mr P J T Vallance Acquisition of 10 Ordinary shares under the matching element of the Plan (Company contribution)

Acquisition of 10 Ordinary shares under the partnership element of the Plan (personal contribution)

The Company and the above-mentioned persons were advised of this information on 10 September 2010.

This notification relates to a transaction notified in accordance with Disclosure and Transparency Rule 3.1.4R(1)(a).

V A Whyte  
Deputy Company Secretary

10 September 2010

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorised.

GlaxoSmithKline plc

(Registrant)

Date: September 10, 2010

By: VICTORIA WHYTE

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Victoria Whyte  
Authorised Signatory for and on  
behalf of GlaxoSmithKline plc