

GLAXOSMITHKLINE PLC  
Form 6-K  
September 30, 2011

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 2011

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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GlaxoSmithKline plc - Continuation of Share Buy-Back Programme during close period

GlaxoSmithKline plc (the "Company") announces that it has today put in place an irrevocable, non-discretionary programme for the purchase of its Ordinary shares during the close period which precedes the 2011 third quarter results announcement, expected to be made on 26 October 2011. The shares to be purchased on behalf of the Company will either be cancelled or held in treasury.

The aim of the programme is to reduce the issued share capital of the Company to help enhance returns for shareholders.

The repurchases, to be made under the Company's existing share buy-back programme, will be managed during the close period by an independent third party which makes its trading decisions in relation to the Company's securities independently of, and uninfluenced by, the Company.

Any purchases pursuant to these arrangements will be carried out during the period between 1 October 2011 and 26 October 2011 within certain pre-set parameters and in accordance with the Listing Rules, other applicable law and the limitations of the repurchase authority approved at the last Annual General Meeting of shareholders.

V A Whyte  
Company Secretary

30 September 2011

#### 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 30, 2011

By: VICTORIA WHYTE

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Victoria Whyte  
Authorised Signatory for and on  
behalf of GlaxoSmithKline plc