GLAXOSMITHKLINE PLC
Form 6-K
September 08, 2014

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 2014

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 x Form 40-F

--

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 x

--

Issued: Monday 8 September 2014, London UK - LSE announcement

New England Journal of Medicine and ERS publish positive results from GSK phase III studies of mepolizumab in patients with severe eosinophilic asthma

Results published today in the New England Journal of Medicine (NEJM) and presented at the European Respiratory Society (ERS) congress provide further data from the two pivotal Phase III asthma studies of mepolizumab, an investigational IL-5 antagonist monoclonal antibody:

- MENSA - MEpolizumab as adjunctive therapy iN patients with Severe Asthma
- SIRIUS - The SteroId ReductIon with MepolizUmab Study

The objective of these pivotal studies was to evaluate the impact of mepolizumab on a number of key endpoints. Both studies met their primary endpoints, with patients receiving mepolizumab achieving a statistically significant reduction in the frequency of clinically significant asthma exacerbations compared to placebo in MENSA, and a statistically significant reduction of daily oral corticosteroid (OCS) dose during weeks 20-24 compared to the dose determined during the optimisation phase in SIRIUS. Treatment with mepolizumab also enabled patients in the studies to experience improved quality of life and improved asthma control as set out further below. Mepolizumab is not currently approved anywhere in the world.

Steve Yancey, Medicine Development Leader, mepolizumab, at GSK, said: "The relationship between over-expression of IL-5 and severe asthma has long been established, but it is only now that we have medicines that can target IL-5 as a possible way to manage eosinophilic inflammation. The combined results of these studies, taken with earlier results, confirm our belief that patients with severe eosinophilic asthma could benefit from mepolizumab. We are pleased to be sharing our findings with the scientific community to expand understanding of innovative approaches to treating eosinophilic asthma for the benefit of patients."

GSK is progressing towards global filings of mepolizumab for severe eosinophilic asthma by the end of 2014.

MENSA STUDY
Study MEA115588 was a 32-week double-blind, double-dummy, placebo-controlled, parallel group multicentre study that randomised and treated 576 patients with severe asthma, who had experienced frequent exacerbations despite treatment with high dose inhaled corticosteroids (ICS) plus at least one other controller medication. All patients were also required to have a blood eosinophil count above a pre-specified threshold of ≥150 cells/µl at initiation of treatment or who have had blood eosinophils ≥300 cells/µl in the past 12 months to be eligible for the study.

Patients remained on their current asthma maintenance therapy throughout the study and were randomised to receive either mepolizumab 75mg intravenous (IV), 100mg subcutaneous (SC), or placebo every four weeks.

Results - MENSA
For the primary endpoint of reduction in exacerbations, defined as worsening of asthma requiring use of systemic corticosteroids and/or hospitalisation, both mepolizumab treatment arms showed a statistically significant reduction in the frequency of clinically significant asthma exacerbations compared to placebo (75mg IV, 47%, $p<0.001$; 100mg SC, 53%, $p<0.001$).
For the endpoints of lung function, measured by FEV1, quality of life, measured by the St George's Respiratory Questionnaire (SGRQ), and asthma control, measured by Asthma Control Questionnaire (ACQ), both mepolizumab arms generated improvements across all measures compared to placebo (full details of the secondary and certain other endpoints are included below).

Endpoints at Week 32	Placebo	Mepolizumab

		75mg IV	100mg SC
Annualised rate of severe asthma exacerbations	1.75	0.93	0.81
Percent reduction of exacerbations compared to placebo	_	47%	53%
p-value*		<0.001	<0.001
FEV1 pre-bronchodilator mL difference from placebo	_	100 mL	98 mL
p-value*		0.025	0.028
FEV1 post-bronchodilator mL difference from placebo	_	146 mL	138 mL
p-value*		0.003	0.004
SGRQ score, # difference from placebo	_	6.4	7.0
p-value*		<0.001	<0.001
ACQ-5 score, difference from placebo	_	0.42	0.44
p -value*		<0.001	<0.001

A change of 4 points is considered clinically relevant; A change of 0.5 points is considered clinically relevant;

* Unadjusted p-value

In addition, patients receiving mepolizumab had a significant reduction in their blood eosinophil count (83% reduction for IV and 86% for SC) which was maintained from week 12 for the duration of the study.

Co-author for the MENSA study and lead author of the first proof-of-concept study and the Phase IIb study of mepolizumab in severe eosinophilic asthma, Professor Ian Pavord, University of Oxford, commented: "Severe asthma can have serious health consequences. For many years we have suspected that eosinophils play an important role in some patients. The data generated from this study confirm this, showing that mepolizumab reduced eosinophil levels and improved important clinical outcomes, particularly exacerbations."

Sub-group analysis - MENSA
Results from a pre-specified subgroup analysis of time to first exacerbation showed that patients receiving mepolizumab IV or SC compared to placebo significantly reduced their risk of exacerbations at Week 16 (probability of an exacerbation, 28%, 24%, 45%, respectively) and also Week 32 (37%, 33%, 56% respectively). In addition, patients receiving mepolizumab SC had a statistically significant reduction in hospitalisation compared to placebo and a relative reduction of 61% (p=0.015).

An even greater reduction in all endpoints was seen in patients with a blood eosinophil level of ≥500 cells/µL, who received mepolizumab. In this sub-group of patients, those receiving mepolizumab 75mg IV and 100mg SC achieved a 74% and 80% reduction in exacerbations respectively.

Adverse events reported in the study were similar across all treatment groups. The most common reported adverse events across all treatment groups were nasopharyngitis, headache, upper respiratory tract infection and asthma. The frequency of adverse events was 83% in the placebo group, 84% in the mepolizumab 75mg IV and 78% in the mepolizumab 100mg SC group. The frequency of serious adverse events was 14% in the placebo group, 7% in the mepolizumab 75mg IV and 8% in the mepolizumab 100mg SC group.

SIRIUS STUDY
Study MEA115575 was a 24-week double-blind, placebo-controlled, parallel group multicentre study to evaluate the use of mepolizumab 100mg SC, every 4 weeks in comparison to placebo in reducing daily oral corticosteroid (OCS)

use while maintaining asthma control. A total of 135 patients with severe asthma who were on treatment with OCS, high dose ICS plus an additional controller medication, were enrolled. All patients were required to have a blood eosinophil count above a pre-specified threshold of ≥150 cells/μl at initiation of treatment or who have had blood eosinophils ≥300 cells/μl in the past 12 months to be eligible for the study.

Prior to randomisation, an OCS optimisation phase was undertaken to ensure that patients genuinely needed OCS to control their asthma and establish the lowest optimal dose. Patients were then initiated onto therapy (week 0-4), and between week 4-20 OCS reduction was undertaken in patients with stable disease, followed by a maintenance period (week 20-24).

Results - SIRIUS
The primary efficacy endpoint was the percentage reduction of daily OCS dose during weeks 20-24 compared to the dose determined during the optimisation phase. In patients with severe eosinophilic asthma, reductions by pre-determined categories in the daily use of OCS are shown below. Mepolizumab was effective in reducing OCS while maintaining control [OR=2.39 (95% CI, 1.25-4.56), p=0.008].

Reduction in OCS dose	Mepolizumab (% of patients)	Placebo (% of patients)
90 - 100%	23	11
75 - <90%	17	8
50 - <75%	13	15
>0 - 50%	10	11
No decrease	36	56

The category defined as 'no decrease' in OCS dose comprises any patient who did not decrease their dose of OCS, or had a lack of asthma control during weeks 20-24, including an exacerbation, or withdrew from treatment.

The median overall reduction from baseline in OCS dose was 50% for patients treated with mepolizumab compared to 0% with placebo (p=0.007). Patients receiving mepolizumab also reported a significant improvement (0.52 points, p=0.004) in their asthma control (ACQ-5 score) and their quality of life, measured by the SGRQ (5.8 points, p=0.019). For the secondary endpoint of total cessation of daily oral glucocorticoids, this was achieved by 14% of patients receiving mepolizumab compared to 8% on placebo, which was not statistically significant (p=0.41).

Patients receiving mepolizumab also had a significant reduction (p<0.001) in their eosinophil count throughout the duration of the study.

In this study adverse events were similar across treatment groups. The most common reported adverse events were headache, nasopharyngitis, bronchitis, sinusitis, fatigue and asthma. The frequency of adverse events was 92% in the placebo and 84% in the mepolizumab treatment group. Frequency of serious adverse events was 18% in the placebo group and 1% in the mepolizumab group.

Lead investigator and primary author for the SIRIUS study, Professor Elisabeth Bel, University of Amsterdam, commented: "Systemic steroids are frequently prescribed for patients with severe asthma, but can have serious and often irreversible side-effects, particularly when used for extended periods of time, so there is tremendous value in investigating alternative treatment options. These data help build our understanding of the potential role of mepolizumab in the management of severe eosinophilic asthma. Its potential to reduce the steroid burden that many patients endure, coupled with patients reporting that they actually feel better, are both important for patients and physicians."

About severe eosinophilic asthma

Currently the World Health Organization (WHO) estimates that as many as 235 million people are living with asthma worldwide. For many of these patients, use of inhaled therapies can provide some or adequate control of their symptoms, however there are as many as 10% of asthma patients who live with severe asthma and cannot achieve control with inhaled therapies and require additional anti-inflammatory medicines, including the use of regular doses of systemic corticosteroids. Whilst this additional treatment may help these difficult-to-treat patients achieve a level of symptom control, frequent use can result in serious and often irreversible effects, such as weight gain, diabetes mellitus, hypertension and glaucoma.

Although asthma is a heterogeneous disease it is often characterised by an accumulation of eosinophils (white blood cells) in lung tissues and, in general, raised eosinophils correlate with severity and frequency of exacerbations. Interleukin-5 (IL-5) is the main promoter of eosinophil growth, activation and survival and provides an essential signal for the movement of eosinophils from the bone marrow into the lung.

About mepolizumab
Mepolizumab is an investigational humanised IgG1 monoclonal antibody specific for IL-5, which binds to IL-5, stopping it from binding to its receptor on the surface of eosinophils. Inhibiting IL-5 binding in this way reduces blood, tissue and sputum eosinophil levels.

Mepolizumab is being investigated as a potential treatment for a sub-group of severe asthma patients who have high eosinophil levels defined as ≥150cells/uL at screening or ≥ 300 cells per uL within 12 months prior to screening, who exacerbate despite high-dose oral or inhaled corticosteroids and an additional controller such as long-acting beta-2 agonist. In addition, mepolizumab is being investigated in eosinophilic COPD and Eosinophilic Granulomatosis with Polyangiitis (EGPA).

Mepolizumab is not approved anywhere in the world.

GSK - one of the world's leading research-based pharmaceutical and healthcare companies - is committed to improving the quality of human life by enabling people to do more, feel better and live longer. For further information please visit www.gsk.com.

GSK enquiries:

UK Media enquiries:	David Mawdsley	+44 (0) 20 8047 5502	(London)
	Simon Steel	+44 (0) 20 8047 5502	(London)
	David Daley	+44 (0) 20 8047 5502	(London)
	Catherine Hartley	+44 (0) 20 8047 5502	(London)
	Sarah Spencer	+44 (0) 20 8047 5502	(London)
US Media enquiries:	Juan Carlos Molina	+1 919 483 0471	(North Carolina)
	Bradd Pavur	+1 919 483 0044	(North Carolina)
	Karen Collins	+1 919 483 2527	(North Carolina)
	Melinda Stubbee	+1 919 483 2510	(North Carolina)
	Sarah Alspach	+1 202 715 1048	

			(Washington, DC)
Analyst/Investor enquiries:	Ziba Shamsi	+44 (0) 20 8047 3289	(London)
	Kirsty Collins (SRI & CG)	+44 (0) 20 8047 5534	(London)
	Tom Curry	+ 1 215 751 5419	(Philadelphia)
	Gary Davies	+44 (0) 20 8047 5503	(London)
	James Dodwell	+44 (0) 20 8047 2406	(London)
	Jeff McLaughlin	+1 215 751 7002	(Philadelphia)
	Lucy Singah	+44 (0) 20 8047 2248	(London)

Cautionary statement regarding forward-looking statements
GSK cautions investors that any forward-looking statements or projections made by GSK, including those made in this announcement, are subject to risks and uncertainties that may cause actual results to differ materially from those projected. Such factors include, but are not limited to, those described under Item 3.D 'Risk factors' in the company's Annual Report on Form 20-F for 2013.

Registered in England & Wales:
No. 3888792

Registered Office:
980 Great West Road
Brentford, Middlesex
TW8 9GS

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 08, 2014

By: VICTORIA WHYTE

Victoria Whyte
Authorised Signatory for and on
behalf of GlaxoSmithKline plc