

GLAXOSMITHKLINE PLC  
Form 6-K  
July 25, 2018

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 25 July 2018

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

Issued: Wednesday 25 July 2018, London UK - LSE Announcement

GSK and 23andMe sign agreement to leverage genetic insights for the development of novel medicines

Multi-year collaboration expected to identify novel drug targets, tackle new subsets of disease and enable rapid progression of clinical programmes

GSK and 23andMe today unveiled an exclusive four-year collaboration that will focus on research and development of innovative new medicines and potential cures, using human genetics as the basis for discovery. The collaboration will combine 23andMe's large-scale genetic resources and advanced data science skills, with the scientific and medical knowledge and commercialisation expertise of GSK. The goal of the collaboration is to gather insights and discover novel drug targets driving disease progression and develop therapies for serious unmet medical needs based on those discoveries.

With over 5 million customers, 23andMe offers those with an interest in genetics the opportunity to learn more about their personal genetic profile. 23andMe customers can also choose to participate in research and contribute their information to a unique and dynamic database, which is now the world's largest genetic and phenotypic resource.

GSK brings extensive drug discovery and development capabilities across a broad range of diseases and modalities, including small molecule, biopharmaceuticals and cell and gene therapies. It will apply its world-class technologies, including access to additional data sources, in-house target validation and genetics expertise, and utilise its manufacturing, commercial operations and scale to support partner activities across research and development.

Dr. Hal Barron, Chief Scientific Officer and President R&D, GSK, said; "We are excited about this unique collaboration as we know that drug targets with genetic validation have a significantly higher chance of ultimately demonstrating benefit for patients and becoming medicines. Partnering with 23andMe, an organisation whose vision and capabilities are transforming the understanding of how genes influence health, will help to shift our research and development organisation to be 'driven by genetics', and increase the impact GSK can have on patients."

Anne Wojcicki, CEO and Co-Founder of 23andMe, said; "This collaboration will enable us to deliver on what many customers have been asking for -- cures or treatments for diseases. By leveraging the genetic and phenotypic information provided by consenting 23andMe customers and combining it with GSK's incredible expertise and resources in drug discovery, we believe we can more quickly make treating and curing diseases a reality."

Together, GSK and 23andMe will focus on translating genetic and phenotypic data into R&D activities that will:

Improve target selection to allow safer, more effective 'precision' medicines to be discovered. Genetic data can significantly improve our understanding of diseases, their pathways and mechanisms, supporting the design and development of more targeted medicines. Use of genetic data in selecting drug targets can increase both the probability of success in a particular indication and avoid unwanted safety risks.

Support identification of patient subgroups that are more likely to respond to targeted treatments. Scale is critical for the detection of genetic effects in smaller subsets of diseases and patients. With over 80% of 23andMe's customer base

consenting to participate in research, their aggregate and de-identified data could help enable the discovery of a significant number of novel associations from a diverse range of people, which would not otherwise be possible.

Allow more effective identification and recruitment of patients for clinical studies. The ability to identify and invite patients with a particular disease, and in some case specific genetic subgroups, to participate in studies that are relevant to them could significantly shorten recruitment and reduce clinical development timelines, allowing medicines to be delivered to patients more efficiently.

#### Deal Terms

Under the terms of the deal, GSK and 23andMe have entered into a four-year collaboration with the option to extend for a fifth year under which GSK will become 23andMe's exclusive collaborator for drug target discovery programmes. During this time, the companies will use 23andMe's rich database and proprietary statistical analytics to fuel drug target discovery, with the goal of jointly discovering novel targets that can progress into development. A joint GSK-23andMe drug discovery team will use their combined resources to identify new targets and prioritise based on strength of the biological hypothesis, possibility to find a medicine, and clinical opportunity.

To allow work to commence immediately, the deal enables both companies to bring existing early stage programmes within the collaboration. 23andMe currently has a portfolio of early stage therapeutic research programmes across a wide range of disease indications, which will be assessed for inclusion. GSK will contribute its LRRK2 inhibitor, which is currently in preclinical development as a potential treatment for Parkinson's disease. This programme is expected to significantly progress by leveraging 23andMe's large base of consented customers who are aware of their LRRK2 variant status as a result of 23andMe's FDA-authorized genetic health reports. Together, GSK and 23andMe are expected to more effectively target and rapidly recruit patients with defined LRRK2 mutations in order to reach clinical proof of concept.

All activities within the collaboration will initially be co-funded (50%/50%), with either company having certain rights to reduce its funding share for any collaboration programme. It is expected that this collaboration will jointly progress a number of targets per year, with either company able to independently progress additional targets identified within the collaboration. GSK will also have the right to work with 23andMe to analyse 23andMe's database for validation of GSK's existing therapeutic portfolio as well as leverage 23andMe's capabilities for clinical trial recruitment. Both GSK and 23andMe will share in the proceeds from new treatments and medicines arising from the collaboration.

Additionally, GSK has made a \$300M equity investment in 23andMe.

#### Protecting what's important

23andMe customers are in control of their data. Participating in 23andMe's research is always voluntary and requires customers to affirmatively consent to participate. For those who do consent, their information will be de-identified, so no individual will be identifiable to GSK.

The continued protection of customers' data and privacy is the highest priority for both GSK and 23andMe. Both companies have stringent security protections in place when it comes to collecting, storing and transferring information about research participants. 23andMe employs software, hardware and physical security measures to protect the computers where data is stored and information will only be transferred using encryption to offer maximum security.

#### Scientific engagement

To ensure broader, ongoing engagement within the scientific community, GSK and 23andMe intend to publish results of research conducted within this collaboration, to allow these learnings to be used to guide future research. 23andMe will also continue to provide data and analyses to academics and researchers in areas outside of target discovery.

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GSK - a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer. For further information please visit [www.gsk.com](http://www.gsk.com)

About 23andMe

23andMe, Inc. is the leading consumer genetics and research company. Founded in 2006, the mission of the company is to help people access, understand and benefit from the human genome. The company was named by MIT Technology Review in its "50 Smartest Companies, 2017" list, and featured as Fast Company's #2 Most Innovative Health Company in 2018. 23andMe has millions of customers worldwide, with over 80 percent of customers consented to participate in research. 23andMe, Inc. is located in Mountain View, CA. More information is available at [www.23andMe.com](http://www.23andMe.com).

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Cautionary statement regarding forward-looking statementsGSK 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 Principal risks and uncertainties in the company's Annual Report on

Form 20-F for 2017.

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: July 25, 2018

By: VICTORIA WHYTE

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Victoria Whyte  
Authorised Signatory for and on  
behalf of GlaxoSmithKline plc