UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Month of February, 2018

Commission File Number: 001-35892

GW PHARMACEUTICALS PLC

(Translation of registrant's name into English)

Sovereign House
Vision Park
Histon
Cambridge CB24 9BZ
United Kingdom
(Address of principal executive offices)

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

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

Other Events

On February 21, 2018, GW Pharmaceuticals plc (the "Company") issued a press release announcing that a Phase 2a proof of concept study of a pipeline compound GWP42006 in adult patients with focal seizures did not meet its primary endpoint. GWP42006 is also being developed within the field of autism spectrum disorders (ASD) which will represent an increased therapeutic focus for ongoing development of this pipeline compound. The press release is attached as Exhibit 99.1 and is incorporated by reference herein. The information contained in Exhibit 99.1 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, unless expressly set forth by specific reference in such a filing.

Exhibits

99.1 Press Release dated February 21, 2018

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 authorized.

GW Pharmaceuticals plc

By: /s/ Adam George
Name: Adam George
Title: Secretary

Date: February 23, 2018

Exhibit 99.1

GW Pharmaceuticals Announces Preliminary Results of Phase 2a Study for its Pipeline Compound GWP42006

-Study did not meet its primary endpoint-

-Company remains committed to continued development of GWP42006 for autism spectrum disorders and will continue to explore the product's potential within the field of epilepsy -

London, UK, Carlsbad, CA, February 21, 2018 – GW Pharmaceuticals plc (Nasdaq: GWPH, "GW," "the Company" or "the Group"), a biopharmaceutical company focused on discovering, developing and commercializing novel therapeutics from its proprietary cannabinoid product platform, today announced that a Phase 2a proof of concept study of a pipeline compound GWP42006 in adult patients with focal seizures did not meet its primary endpoint. GWP42006 is also being developed within the field of autism spectrum disorders (ASD) which will represent an increased therapeutic focus for ongoing development of this pipeline compound.

GWP42006 trial in focal seizures

The Phase 2a placebo-controlled study evaluated the efficacy and safety of GWP42006, which features cannabidivarin (CBDV) as the primary cannabinoid molecule, as add-on therapy in 162 adult patients with inadequately controlled focal seizures. The trial was conducted outside the United States, primarily in Eastern Europe. In the trial's preliminary top-line results, both active and placebo arms showed similar reductions in focal seizures of approximately 40 percent. The extent of this placebo response is substantially greater than that seen in published studies of other treatments in similar patient populations and the Company is now working to understand the potential reasons for this result. In the trial, GWP42006 was generally well tolerated. More patients in the active group (73 percent) experienced treatment emergent adverse events compared to the placebo group (48 percent). A majority of the GWP42006 patients experienced adverse events of mild or moderate severity. The incidence of serious adverse events was low (3.7 percent on active compared to 1.2 percent on placebo).

GWP42006 has shown anti-epileptic properties across a range of *in vitro* and *in vivo* models of epilepsy. GW will continue to explore potential development opportunities for this compound in the field of epilepsy.

GWP42006 progress in Autism Spectrum Disorders

In parallel with this study, GW has been evaluating GWP42006 in both general and syndromic pre-clinical models of ASD yielding promising signals on cognitive and social endpoints as well as repetitive behavior. These include both genetically determined abnormalities of neurobehavioral, and chemically-induced models, and include Rett syndrome and Fragile X among others. GW will continue to advance various clinical initiatives within the field of ASD, including a physician-led expanded access IND in 10 patients with autism as well as both open-label and Phase 2 placebo-controlled trials in Rett syndrome, a condition for which GWP42006 has received Orphan Drug Designation from the FDA. Open label data from the expanded access IND are expected later in 2018.

"GW's R&D focus has evolved in the last few years towards pediatric neurology where we have generated significant positive clinical data. Whilst the results of this adult focal seizure study for GWP42006 are disappointing, we remain committed to advancing this pipeline compound to address unmet needs in the field of autism spectrum disorders, in which a promising body of pre-clinical data has already been generated, as well as continuing to explore the product's potential within the field of epilepsy," said Justin Gover, GW's Chief Executive Officer. "The company's top priority in 2018 remains Epidiolex, for which we have generated compelling positive data in three Phase 3 trials, and which is currently under regulatory review in the U.S. and Europe. We are very excited at the prospect of launching this potential breakthrough treatment later this year in the U.S., whilst continuing to progress our broad and innovative cannabinoid pipeline."

About GW Pharmaceuticals plc and Greenwich Biosciences

Founded in 1998, GW is a biopharmaceutical company focused on discovering, developing and commercializing novel therapeutics from its proprietary cannabinoid product platform in a broad range of disease areas. GW, along with its U.S. subsidiary Greenwich Biosciences, is advancing an orphan drug program in the field of childhood-onset epilepsy with a focus on Epidiolex (cannabidiol), for which GW has submitted regulatory applications in the U.S. and Europe for the adjunctive treatment of Lennox-Gastaut syndrome and Dravet syndrome. The Company continues to evaluate Epidiolex in additional rare epilepsy conditions and currently has ongoing clinical trials in Tuberous Sclerosis Complex and Infantile Spasms. GW commercialized the world's first plant-derived cannabinoid prescription drug, Sativex® (nabiximols), which is approved for the treatment of spasticity due to multiple sclerosis in numerous countries outside the United States and for which the company is now planning a US Phase 3 trial. The Company has a deep pipeline of additional cannabinoid product candidates which includes compounds in Phase 1 and 2 trials for epilepsy, gliobastoma, and schizophrenia. For further information, please visit www.gwpharm.com.

Forward-looking statements

This news release contains forward-looking statements that reflect GW's current expectations regarding future events, including statements regarding financial performance, the timing of clinical trials, the timing and outcomes of regulatory or intellectual property decisions, the relevance of GW products commercially available and in development, the clinical benefits of GWP42006 and the safety profile and commercial potential of GWP42006. Forward-looking statements involve risks and uncertainties. Actual events could differ materially from those projected herein and depend on a number of factors, including (inter alia), the success of GW's research strategies, the applicability of the discoveries made therein, the successful and timely completion and uncertainties related to the regulatory process, and the acceptance of Sativex, Epidiolex and other products by consumer and medical professionals. A further list and description of risks and uncertainties associated with an investment in GW can be found in GW's filings with the U.S. Securities and Exchange Commission, including the most recent Form 20-F filed on 4 December 2017. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. GW undertakes no obligation to update or revise the information contained in this press release, whether as a result of new information, future events or circumstances or otherwise.

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