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 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June, 2022

Commission File Number: 001-38452

MEREO BIOPHARMA GROUP PLC

(Translation of registrant's name into English)

4th Floor, One Cavendish Place,
London, W1G 0QF, United Kingdom
(Address of principal executive office)

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): ☐

Exhibit Index

Exhibits

99.1	Press release dated June 2, 2022 titled "Mereo BioPharma To Present Data Update for the Phase 1b/2 Study (ACTIVATE) of Etigilimab and Nivolumab at 2022 ASCO Annual Meeting; Mereo Also Updates Capital Allocation and Portfolio Prioritization Plan."

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.

Date: June 2, 2022

MEREO BIOPHARMA GROUP PLC

By: /s/ Charles Sermon
Name: Charles Sermon
Title: General Counsel

Exhibit 99.1

Mereo BioPharma To Present Data Update for the Phase 1b/2 Study (ACTIVATE) of Etigilimab and Nivolumab at 2022 ASCO Annual Meeting;

Mereo Also Updates Capital Allocation and Portfolio Prioritization Plan

—ACTIVATE includes 2 Complete Responses, 4 Partial Responses and 10 patients with Stable Disease as of April 2022 data cut off--

—Etigilimab safe and well tolerated, no new safety signals—

—Prioritization initiatives extend cash runway to late 2024 —

London and Redwood City, Calif., June 2, 2022 - Mereo BioPharma Group plc (NASDAQ: MREO), ("Mereo" or "the Company"), a clinical-stage biopharmaceutical company focused on rare diseases and oncology, today announced updated clinical data from its open-label Phase 1b/2 Study of Etigilimab and Nivolumab in subjects with Select Locally Advanced or Metastatic Solid Tumors (ACTIVATE). The data will be presented in a poster session at the 2022 American Society of Clinical Oncology (ASCO) Annual Meeting on June 5, 2022. The Company also provided an update on its capital allocation and portfolio prioritization plan.

The multicenter ACTIVATE study is designed to evaluate the efficacy, safety, tolerability, PK, and pharmacodynamics of etigilimab, in combination with nivolumab, with dosing every two weeks.

As of the cut off date of April 20, 2022, there were 38 efficacy-evaluable subjects with a minimum of 1 staging scan or documented clinical progression. Treatment of etigilimab in combination with nivolumab has shown preliminary efficacy across multiple tumor types with 2 complete responses (CRs), 4 partial responses (PRs), and 10 stable disease (SDs) for an overall response rate (ORR) of 15.8% and disease control rate (DCR) of 42.1% in heavily pre-treated, CPI-naïve subjects. Additionally, 7 subjects with clinical benefit remained on study treatment for ≥ 18 weeks. Clinical benefit was noted in tumor types not typically responsive to immune checkpoint inhibitor monotherapy. The combination of etigilimab and nivolumab has been safe and well tolerated, with no new treatment-related SAEs or safety signals observed to-date.

"We are very pleased with these updated results from the ACTIVATE study and look forward to sharing our findings at ASCO," said Dr. Suba Krishnan, Senior Vice President, Clinical Development of Mereo. "We are encouraged by the results reported as of the cut-off date, especially the early efficacy noted in cervical cancer, where we have seen two complete responses and two cases of stable disease among five subjects, and in uveal melanoma subjects in the rare tumor cohort, where we saw one partial response and two stable disease with over 20 weeks on study treatment. While these early data are encouraging for our differentiated clinical strategy, we will continue to monitor emerging clinical data on other anti-TIGIT therapeutics as we determine the most appropriate path forward for etigilimab."

Updated Capital Allocation and Portfolio Prioritization Plan

Mereo also announced the outcome of a review to update its capital allocation strategy, including general and administrative and other costs, and portfolio prioritization in light of current market conditions and recent industry clinical data announcements. This review was undertaken with the aim of maximizing shareholder value. Based on these initiatives, the Company now expects its current cash runway will be extended from "into" 2024 to late 2024.

The portfolio, in order of development stage, is as follows:

- **Setrusumab for Osteogenesis Imperfecta (OI)**: As planned, Mereo will target its investment toward the activities required in support of the EU and UK territories and the ongoing collaboration with Ultragenyx Pharmaceutical, Inc. The Phase 2/3 in 5-25 year olds has been initiated by Ultragenyx and an update on the Phase 2 is expected before the end of 2022.

- **Alvelestat for Alpha-1-Anti-Trypsin Deficiency (AATD)**: Mereo recently announced positive top-line data from the Phase 2 study of alvelestat in AATD. The Company intends to complete further analysis of the Phase 2 data during 2H 2022 and will evaluate further options for the program once it has completed an end-of-Phase 2 meeting with the FDA (intended by end of 2022) and an EMA scientific advisory meeting (thereafter). As previously planned, no additional clinical development expense will be incurred for this program from the current cash resources.
- **Etigilimab in Oncology:** Mereo intends to complete enrollment in the Phase 1b part of the previously planned Phase 1b/2 study in Q3 2022. The Company will then evaluate further options based on the Phase 1b data and external factors, including clinical data from other anti-TIGIT programs.

Mereo will continue to explore a range of additional financing options for its programs, including partnerships, which may include retention of certain rights and/or territories, as well as non-dilutive financing.

“We conducted this strategic review over the last few months in light of current market conditions and emerging external clinical data, to focus the Company’s resources on our lead programs,” said Dr. Denise Scots-Knight, Chief Executive Officer of Mereo. “As a result of our updated capital allocation plan, our current cash balance of $111.4 million (as of March 31, 2022) will now support our operating runway into late 2024. We believe this puts Mereo in a stronger position to maximize shareholder value and deliver on multiple milestones over the next two years as we focus on our mission of developing transformative therapies.”

Details of the ASCO data presentation are as follows:

Abstract Title: A Phase 1b/2 Study of Etigilimab (MPH313) and Nivolumab in Subjects with Select Locally Advanced or Metastatic Solid Tumors (ACTIVATE)
Session Date & Time: Sunday, June 5 at 9AM ET
Session Title: Developmental Therapeutics—Immunotherapy
Abstract ID: 2651

About Mereo BioPharma

Mereo BioPharma is a biopharmaceutical company focused on the development of innovative therapeutics for rare diseases and in oncology and plans to commercialize selected rare disease programs. The Company has developed a portfolio of six clinical stage product candidates. The Company has two rare disease product candidates, setrusumab for the treatment of osteogenesis imperfecta (OI) and alvelestat for the treatment of severe Alpha-1 antitrypsin deficiency (AATD) and Bronchiolitis Obliterans Syndrome (BOS). The Company’s partner, Ultragenyx Pharmaceutical, Inc., has initiated a pivotal Phase 2/3 pediatric study in young adults (5-25 years old) for setrusumab in OI and expects to initiate a study in pediatric patients (2-5 years old) in the second half of 2022. The partnership with Ultragenyx includes potential milestone payments of up to $254 million and royalties to Mereo on Ultragenyx territories. Mereo has retained EU and UK commercial rights and will pay Ultragenyx royalties on those territories. Alvelestat has received U.S. Orphan Drug Designation for the treatment of AATD and positive top-line data were recently reported from a Phase 2 proof-of-concept study in North America, Europe and the UK. Mereo’s lead oncology product candidate, etigilimab (anti-TIGIT), is currently in an open label Phase 1b/2 basket study evaluating anti-TIGIT in combination with an anti-PD-1 in a range of tumor types including three rare tumors and three gynecological carcinomas, cervical, ovarian, and endometrial carcinomas. The Company’s second oncology product, navicixizumab, for the treatment of late line ovarian cancer, has completed a Phase 1 study and has been partnered with OncXerna Therapeutics, Inc., formerly Oncologie, Inc. The global licensing agreement with OncXerna includes payments of up to $300 million in milestones and royalties. OncXerna has stated that they intend to initiate a Phase 3 trial of navicixizumab in late line ovarian cancer patients.

Forward-Looking Statements

This press release contains "forward-looking statements." All statements other than statements of historical fact contained in this press release are forward-looking statements within the meaning of Section 27A of the United States Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements usually relate to future events and anticipated revenues, earnings, cash flows or other aspects of our operations or operating results. Forward-looking statements are often identified by the words "believe," "expect," "anticipate," "plan," "intend," "foresee," "should," "would," "could," "may," "estimate," "outlook" and similar expressions, including the negative thereof. The absence of these words, however, does not mean that the statements are not forward-looking. These forward-looking statements are based on the Company's current expectations, beliefs and assumptions concerning future developments and business conditions and their potential effect on the Company. While management believes that these forward-looking statements are reasonable as and when made, there can be no assurance that future developments affecting the Company will be those that it anticipates.

All of the Company's forward-looking statements involve known and unknown risks and uncertainties some of which are significant or beyond its control and assumptions that could cause actual results to differ materially from the Company's historical experience and its present expectations or projections. You should carefully consider the foregoing factors and the other risks and uncertainties that affect the Company's business, including those described in the "Risk Factors" section of its latest Annual Report on Form 20-F, reports on Form 6-K and other documents furnished or filed from time to time by the Company with the Securities and Exchange Commission. The Company wishes to caution you not to place undue reliance on any forward-looking statements, which speak only as of the date hereof. The Company undertakes no obligation to publicly update or revise any of our forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise, except to the extent required by law.

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