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 March, 2021

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): ☐

INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K

Exhibit Index

Exhibits

99.1	Press release, dated March 31, 2021, announcing the Company's financial results for the year ended December 31, 2020.

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: March 31, 2021

MEREO BIOPHARMA GROUP PLC

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

Exhibit 99.1

Mereo BioPharma Reports Full Year 2020 Financial Results and Recent Highlights
— Ultragenyx Collaboration and License Agreement for Setrusumab in Osteogenesis Imperfecta —
— Further Strengthened Management Team —
— OncXerna Global Licensing Agreement for Navicixizumab —
— Strengthened Balance Sheet through Public and Private Financings and Business Development Transactions —

London and Redwood City, Calif., March 31, 2021 - Mereo BioPharma Group plc (NASDAQ: MREO) ("Mereo" or the "Company"), a clinical-stage biopharmaceutical company focused on oncology and rare diseases, today announced financial results and for the year ended December 31, 2020 and provided an update on recent corporate highlights.

"Despite the challenging landscape presented by the ongoing pandemic, this past year has been one of continued execution for Mereo, and I believe that 2020 was a highly successful and exciting year for the Company," said Dr. Denise Scots-Knight, Chief Executive Officer of Mereo. "We were able to further strengthen our partnering portfolio with licensing agreements for setrusumab and navicixizumab, with significant milestone payments tied to each deal. Our internal pipeline has continued to progress with etigilimab currently in a Phase 1b/2 basket study and alvelestat in a Phase 2 POC study for patients with AATD as well as a Phase 1 study in patients with COVID-19. Since the beginning of 2020, we successfully raised a total of $183 million (£138 million) through a combination of private placements, convertible loan notes and most recently a public offering in February 2021. The proceeds from these financing events, coupled with the upfront payments under the setrusumab and navicixizumab licensing agreements, will fund the continued advancement of our clinical programs and allow us to continue focusing on execution of our clinical and operational development strategies. As we look toward 2021, I believe that the Company is well positioned to deliver on multiple milestones and build upon the momentum we generated in 2020 as we continue to advance to our goal of becoming a leading biopharmaceutical company developing innovative therapeutics to improve outcomes for patients with rare diseases and select oncology indications."

Recent Product Highlights and Developments

Etigilimab (OMP-313M32)

- Initiated Phase 1b/2 basket study in combination with an anti-PD-1 in a range of tumor types
- Initial data expected second half 2021

Alvelestat (MPH-966)

- Ongoing Phase 2 trial in 165 patients with AATD
- Data expected in late 2021
- Initiated Phase 1 study for the treatment of COVID-19 – data expected second half 2021

Setrusumab (BPS-804)

- Rare pediatric disease designation in September 2020
- Announced partnership with Ultragenyx for the development of setrusumab for the treatment of patients with OI in December 2020

Navicixizumab (OMP-305B83)

- In January 2020 completed a global license agreement with OncXerna Therapeutics (formerly Oncologie, Inc.) for the further development and commercialization of navicixizumab.

Corporate Updates

Strengthened Management team

- John Lewicki, PhD appointed Chief Scientific Officer, and Ann Kapoun, PhD appointed SVP Translational R&D, June 2020
- Christine Fox appointed Chief Financial Officer, and Heidi Petersen appointed SVP Regulatory Affairs, October 2020
- Suba Krishnan, M.D. appointed Senior Vice President of Clinical Development, November 2020

Delisted From AIM

- Officially delisted from the AIM market of the London Stock Exchange on December 18, 2020
- The Company's American Depositary Shares ("ADSs") remain listed, and are only tradeable on Nasdaq

Upcoming Events

- Needham Healthcare Conference, April 12-15, 2021
- Jefferies Healthcare Conference, June 1-4, 2021

Full Year 2020 Financial Results

Full year 2020 research and development expenses were £16.3 million, compared to £23.6 million in 2019. R&D expenses relating to setrusumab decreased by £6.0 million, or 44%. The decrease was driven primarily by the completion of the adult Phase 2b study which reported top-line data in November 2019, with a further update in January 2020. Following the licensing and collaboration agreement with Ultragenyx, future ongoing development costs for setrusumab are expected to decrease significantly. R&D expenses relating to alvelestat remained consistent, reflecting the ongoing Phase 2 proof-of-concept study. R&D expenses relating to leflutrozole decreased by £1.0 million, or 88%, due to the completion of the Phase 2b study in 2019 and limited activity in 2020 following the completion of the study. Similarly, there were no ongoing studies for acumapimod in 2020 and this resulted in a decrease in R&D expenses for acumapimod of £0.3 million, or 72%. Partially offsetting the decrease, R&D expenses relating to etigilimab increased by £0.3 million, or 34%. The increase was driven primarily by the costs associated with preparing for the open label Phase 1b/2 basket study in combination with an anti-PD-1 in a range of tumor types. We expect the costs related to the etigilimab program to increase significantly in 2021.

Administrative expenses increased by £5.3 million, or 33%, from £15.9 million in 2019 to £21.2 million in 2020. The increase was primarily due to incremental legal and professional fees associated with various transactions during the year. Professional and legal fees increased from £1.7 million to £6.9 million in 2019 and 2020, respectively. The increase reflects transaction costs associated with the June 2020 Private Placement and the cancellation of admission of our ordinary shares to trading on the AIM market of London Stock Exchange in December 2020, along with higher costs associated with the Nasdaq listing and managing a larger business in two jurisdictions following the acquisition of Mereo BioPharma 5, partially offset by intellectual property related costs as a result of lower activity associated with setrusumab. Employee-related costs increased by £1.5 million to £7.3 million in 2020 primarily due to the expansion of our management team in 2020 compared to 2019. Premises-related costs increased by £1.7 million in 2020 primarily due to transaction costs associated with renegotiation of our office lease in Redwood City. This was partially offset by a gain on lease modification of £0.9 million. Offsetting these increases were lower travel-related costs, which decreased by £0.5 million from 2019 due to COVID-19 travel restrictions.

Net loss attributable to equity holders for the year 2020 was £163.6 million, compared to a net loss of £34.8 million in 2019, reflecting an operating loss of £37.6 million, a loss of £109.8 million due to changes in the fair value of financial instruments and a £10.9 million loss on disposal of intangible assets.

Total ordinary shares outstanding at December 31, 2020 were approximately 339 million shares. Total ADSs outstanding at December 31, 2020 were approximately 67.7 million, with each ADS representing five ordinary shares of the Company.

Cash and short-term deposits totaled £23.5 million as of December 31, 2020. Mereo anticipates that its current cash and short-term deposits, which includes the upfront payment received under the collaboration and license agreement with Ultragenyx and our recently completed public offering in February 2021, will extend the Company's runway into 2024.

About Mereo BioPharma

Mereo BioPharma is a biopharmaceutical company focused on the development and commercialization of innovative therapeutics that aim to improve outcomes for oncology and rare diseases. The Company has developed a portfolio of six clinical stage product candidates. Mereo's lead oncology product candidate, etigilimab (Anti-TIGIT), has recently advanced into 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 a number of gynecological carcinomas including 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 Company has two rare disease product candidates: alvelestat for the treatment of severe Alpha-1 antitrypsin deficiency (AATD), which is being investigated in an ongoing Phase 2 proof-of-concept study in the U.S. and Europe, for which the Company expects to report top line data in late 2021, and setrusumab for the treatment of osteogenesis imperfecta (OI). Following the completion of the Company's Phase 2b ASTEROID study, the Company met with both the FDA and the European Medicines Agency (EMA) to discuss the principles of a design of a single Phase 2/3 registrational pediatric study in OI. In September 2020, the FDA granted Rare Pediatric Disease designation to setrusumab for the treatment of OI. In December 2020, the Company signed a license and collaboration agreement for setrusumab in OI with Ultragenyx Pharmaceutical Inc.

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 involve 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 SEC. 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 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.

Mereo BioPharma Contacts:

Mereo **+44 (0)333 023 7300**

Denise Scots-Knight, Chief Executive Officer

Christine Fox, Chief Financial Officer

Burns McClellan (Investor Relations Adviser to Mereo) **+01 212 213 0006**

Lee Roth

Investors investors@mereobiopharma.com

Consolidated Statement of Comprehensive Loss

	Year ended December 31,		
	2020	2019	2018
	£'000s	£'000s	£'000s
Research and development expenses	(16,347)	(23,608)	(22,703)
Administrative expenses	(21,222)	(15,909)	(11,775)
Operating loss	**(37,569)**	**(39,517)**	**(34,478)**
Net income recognized on acquisition of subsidiary	—	1,035	—
Finance income	44	377	307
Finance costs	(6,383)	(4,371)	(3,807)
Changes in the fair value of financial instruments	(109,849)	875	716
Loss on disposal of intangible assets	(10,872)	—	—
Net foreign exchange (loss)/gain	(1,821)	483	(44)
Loss before tax	**(166,450)**	**(41,118)**	**(37,306)**
Taxation	2,822	6,274	5,277
Loss attributable to equity holders of the parent	**(163,628)**	**(34,844)**	**(32,029)**
Other comprehensive loss – items that may be reclassified to profit or loss			
Exchange differences on translation of foreign operations	349	(499)	—
Other comprehensive loss, net of tax	**349**	**(499)**	**—**
Total comprehensive loss attributable to equity holders of the parent	**(163,279)**	**(35,343)**	**(32,029)**
Basic and diluted loss per share	**(0.48)**	**(0.39)**	**(0.45)**

Consolidated Balance Sheet

	Year Ended December 31, 2020	2019
Assets	**£'000s**	**£'000s**
Non-current assets		
Property, plant and equipment	1,573	11,558
Intangible assets	31,648	44,456
	33,221	56,014
Current assets		
Prepayments	1,619	2,111
R&D tax credits	2,818	10,426
Other taxes recoverable	804	979
Other receivables	1,016	572
Cash and short-term deposits	23,469	16,347
	29,726	30,435
Total assets	**62,947**	**86,449**
Equity and liabilities		
Non-current liabilities		
Provisions	1,216	1,449
Interest-bearing loans and borrowings	16,142	5,373
Warrant liability	50,775	131
Other liabilities	62	44
Lease liability	1,158	9,318
	69,353	16,315
Current liabilities		
Trade and other payables	3,333	6,352
Accruals	4,178	5,138
Provisions	418	309
Interest-bearing loans and borrowings	—	15,139
Contingent consideration liability	—	354
Lease liability	636	2,586
	8,565	29,878
Total liabilities	**77,918**	**46,193**
Net (liabilities)/assets	**(14,971)**	**40,256**
Equity		
Issued capital	1,017	294
Share premium	161,785	121,684
Other capital reserves	128,374	59,147
Employee Benefit Trust shares	(1,305)	(1,305)
Other reserves	5,001	7,000
Accumulated loss	(309,693)	(146,065)
Translation reserve	(150)	(499)
Total equity	**(14,971)**	**40,256**