As filed with the Securities and Exchange Commission on March 12, 2020
Registration No. 333-236497

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 2
to

FORM F-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

MEREO BIOPHARMA GROUP PLC

(Exact Name of Registrant as Specified in Its Charter)
Not Applicable
(Translation of Registrant's Name into English)

England and Wales	**2834**	**Not Applicable**
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

Fourth Floor
One Cavendish Place
London W1G 0QF UK
Telephone: +44 33 3023 7300
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Mereo US Holdings Inc.
251 Little Falls Drive
Wilmington, DE 19808
Telephone: +1 302 636 5401
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

David S. Bakst
Mayer Brown LLP
1221 Avenue of the Americas
New York, New York 10020
Telephone: +1 212 506 2500

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐_____

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐_____

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐_____

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933. Emerging growth company ☒

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state or jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS (Subject to Completion) **Dated March 12, 2020**

17,902,082 American Depositary Shares

Representing 89,510,410 Ordinary Shares

This prospectus relates to the sale of up to $28,300,000 or 17,902,082 American Depositary Shares ("ADSs"), which represent 89,510,410 of our ordinary shares, with each ADS representing five (5) of our ordinary shares, by Aspire Capital Fund, LLC (referred to in this prospectus as "Aspire Capital" or the "selling shareholder") that we may issue at our option to Aspire Capital in the future, pursuant to a securities purchase agreement entered into with Aspire Capital on February 10, 2020 (the "Purchase Agreement"), which consists of (i) 11,432,925 ordinary shares that may be exchanged for 2,286,585 ADSs (the "Initial Shares") that were issued to the selling shareholder for $0.26 per ordinary share (equivalent to $1.31 per ADS) for an aggregate amount of $3,000,000, (ii) 2,862,595 ordinary shares that may be exchanged for 572,519 ADSs (the "Commission Shares") issued in satisfaction for the commission fee due to Aspire Capital of $300,000 pursuant to the Purchase Agreement, and (iii) up to an additional $25,000,000 ordinary shares exchangeable for ADSs issuable to the selling shareholder under the Purchase Agreement for which we are registering 15,042,978 ADSs representing 75,214,890 ordinary shares (calculated based on the average of the high and low sale price of our ordinary shares on the Alternative Investment Market ("AIM") on February 13, 2020 of £0.2575 per share, converted into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on February 7, 2020, of $1.2908 to £1.0000). As of the date of this prospectus, the exact number of ordinary shares we may issue to the selling shareholder under the Purchase Agreement is not determinable because the actual purchase price per share will fluctuate based on the market price of our shares during the term of the Purchase Agreement.

The ADSs may be evidenced by American Depositary Receipts ("ADRs"). Any proceeds that the Company receives under the Purchase Agreement are expected to be used for working capital and general corporate purposes.

The prices at which the selling shareholder may sell the ADSs will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive proceeds from the sale of the ADSs by the selling shareholder. However, we may receive proceeds of up to $28.0 million from the sale of our ADSs to the selling shareholder pursuant to the Purchase Agreement, once the registration statement, of which this prospectus is a part, is declared effective, which includes $3.0 million that we received from the selling shareholder for the sale of the Initial Shares of 11,432,925 ordinary shares exchangeable for 2,286,585 ADSs to the selling shareholder.

Aspire Capital is an "underwriter" within the meaning of the Securities Act. We will pay the expenses of registering these ADSs, but all selling and other expenses incurred by the selling shareholder will be paid by the selling shareholder.

Our ADSs trade on the Nasdaq Global Market ("Nasdaq") under the symbol "MREO." In addition, our ordinary shares trade on AIM, a market of the London Stock Exchange, under the symbol "MPH."

We are both an "emerging growth company" and a "foreign private issuer" as defined under the Securities Act of 1933, as amended, and, as such, are subject to reduced public company reporting requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company and a Foreign Private Issuer" for additional information.

Our business and an investment in our ADSs involve significant risks. See "Risk Factors" beginning on page 22 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed on the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Prospectus dated , 2020

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We are responsible for the information contained in this prospectus and any free-writing prospectus we prepare or authorize. We have not, and the selling shareholder has not, authorized anyone to provide you with different information, and we and the selling shareholder take no responsibility for any other information others may give you. We are not, and the selling shareholder is not, making an offer to sell our ADSs in any jurisdiction where such offer or sale is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or the sale of any ADSs.

For investors outside the United States: neither we nor the selling shareholder have done anything that would permit the offering or possession or distribution of this prospectus or any free writing prospectus in any jurisdiction, other than the United States, where action for that purpose is required. Persons outside the United States who come into possession of this prospectus or any free writing prospectus must inform themselves about, and observe any restrictions relating to, the offering and the distribution of this prospectus and any free writing prospectus outside the United States.

We are a public limited company incorporated under the laws of England and Wales and a majority of our outstanding securities are owned by non-U.S. residents. Under the rules of the U.S. Securities and Exchange Commission ("SEC"), we are currently eligible for treatment as a "foreign private issuer." As a foreign private issuer, we will not be required to file periodic reports and financial statements with the SEC as frequently or as promptly as domestic registrants whose securities are registered under the Securities Exchange Act of 1934, as amended.

ABOUT THIS PROSPECTUS

Under this registration statement, the selling shareholder may sell our ADSs described in this prospectus from time to time. Please read carefully this prospectus together with additional information described below under “Where You Can Find More Information.”

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to:

- “ADSs” are to our American Depositary Shares, each of which represents five ordinary shares of Mereo BioPharma Group plc;
- “ADRs” are to the American Depositary Receipts that may evidence our ADSs;
- “EMA” are to the European Medicines Agency;
- “Exchange Act” are to the U.S. Securities Exchange Act of 1934, as amended;
- “FDA” are to the U.S. Food and Drug Administration;
- “Mereo,” the “Company,” “we,” “us,” and “our” refer to Mereo BioPharma Group plc and our wholly-owned subsidiaries Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited, Mereo BioPharma 3 Limited, Mereo BioPharma 4 Limited, Mereo BioPharma Ireland Limited, Mereo US Holdings Inc., NAVI Subsidiary, Inc. and OncoMed Pharmaceuticals, Inc. Our consolidated financial statements also treat Mereo BioPharma Group plc Employee Benefit Trust, an employee benefit trust operated by us, as a wholly-owned subsidiary of ours;
- the “Merger” are to the merger of Mereo MergerCo One Inc. and OncoMed Pharmaceuticals, Inc., with OncoMed Pharmaceuticals, Inc. surviving as a wholly-owned subsidiary of Mereo US Holdings Inc., and as an indirect wholly-owned subsidiary of Mereo BioPharma Group plc;
- the “Merger Agreement” are to the Agreement and Plan of Merger and Reorganization, dated December 5, 2018, by and among Mereo BioPharma Group plc, Mereo US Holdings Inc., Mereo MergerCo One Inc. and OncoMed Pharmaceuticals, Inc.;
- “OncoMed” are to OncoMed Pharmaceuticals, Inc.;
- “ordinary shares” are to our ordinary shares, each of £0.003 nominal value;
- “SEC” are to the U.S. Securities and Exchange Commission;
- “Securities Act” are to the U.S. Securities Act of 1933, as amended;
- “$,” “USD,” “US$” and “U.S. dollar” are to the United States dollar (or units thereof); and
- “£,” “GBP,” “pound sterling,” “pence” and “p” are to the British pound sterling (or units thereof).

PRESENTATION OF FINANCIAL INFORMATION

This prospectus includes our audited consolidated financial statements as of December 31, 2018 and 2017 and for each of the three years in the period ended December 31, 2018, our unaudited interim consolidated financial statements as of June 30, 2019 and 2018 and for the six months ended June 30, 2019 and 2018, prepared in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board (“IASB”), and certain unaudited pro forma condensed combined financial information. The unaudited interim consolidated financial statements have been prepared in accordance with International Accounting Standards (“IAS”) 34 as issued by the IASB. None of our financial statements were prepared in accordance with U.S. generally accepted accounting standards (“U.S. GAAP”).

Our financial information is presented in pounds sterling. Translations from pounds sterling into U.S. dollars are not necessarily indicative of the amounts of U.S. dollars that could actually have been purchased upon exchange of pounds sterling at the dates indicated.

This prospectus also includes the audited balance sheets of OncoMed Pharmaceuticals, Inc. as of December 31, 2018 and 2017, the related statements of operations, comprehensive loss, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "OncoMed financial statements"). The OncoMed financial statements have been prepared in conformity with U.S. GAAP. OncoMed financial information is presented in U.S. dollars.

We have made rounding adjustments to some of the figures included in this prospectus. Accordingly, numerical figures shown as totals in some tables may not be an arithmetic aggregation of the figures that preceded them.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary may not contain all the information that may be important to you, and we urge you to read this entire prospectus carefully, including the information set forth under the sections titled "Selected Consolidated Financial Data of Mereo," "Unaudited Pro Forma Condensed Combined Financial Information," "Risk Factors," "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the notes thereto, before deciding to invest in our ADSs.

Overview

We are a biopharmaceutical company focused on the development and commercialization of innovative therapeutics that aim to improve outcomes for patients with rare diseases. Our ADSs trade on Nasdaq under the symbol "MREO" and our ordinary shares trade on the AIM, a market of the London Stock Exchange, under the symbol "MPH." Our strategy is to build a portfolio of rare disease product candidates acquired from pharmaceutical and large biotechnology companies and to develop these through regulatory approval and subsequent commercialization.

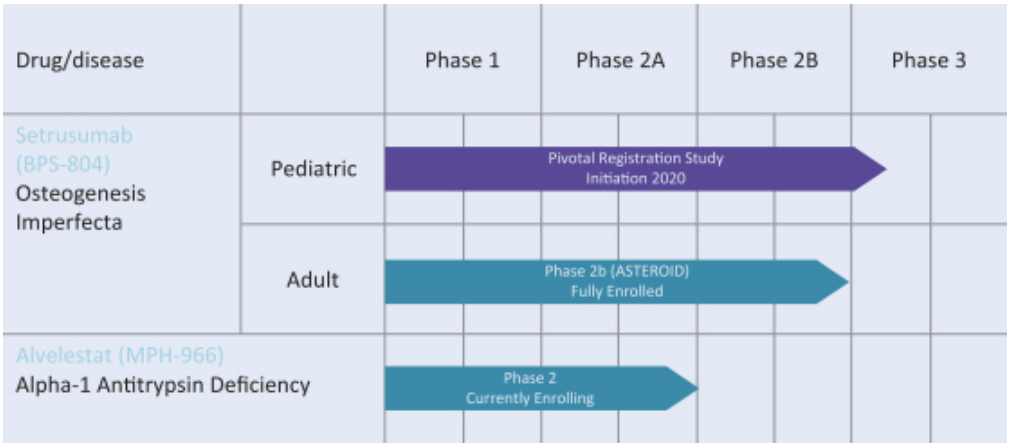
Our existing portfolio consists of five clinical-stage product candidates. Our rare and orphan disease product candidates, setrusumab for the treatment of osteogenesis imperfecta ("OI") and alvelestat for the treatment of severe alpha-1 antitrypsin deficiency ("AATD"), represent an attractive development and commercialization opportunity for us. Each of our rare disease product candidates has generated positive clinical data for its target indication or for a related indication.

We plan to partner or sell our existing non-rare disease product candidates, which include acumapimod for the treatment of acute exacerbations of chronic obstructive pulmonary disease ("AECOPD"), leflutrozole for the treatment of hypogonadotropic hypogonadism ("HH") in obese men and etigilimab for the treatment of solid tumors, recognizing the need for a larger sales infrastructure and greater resources to take these product candidates to market.

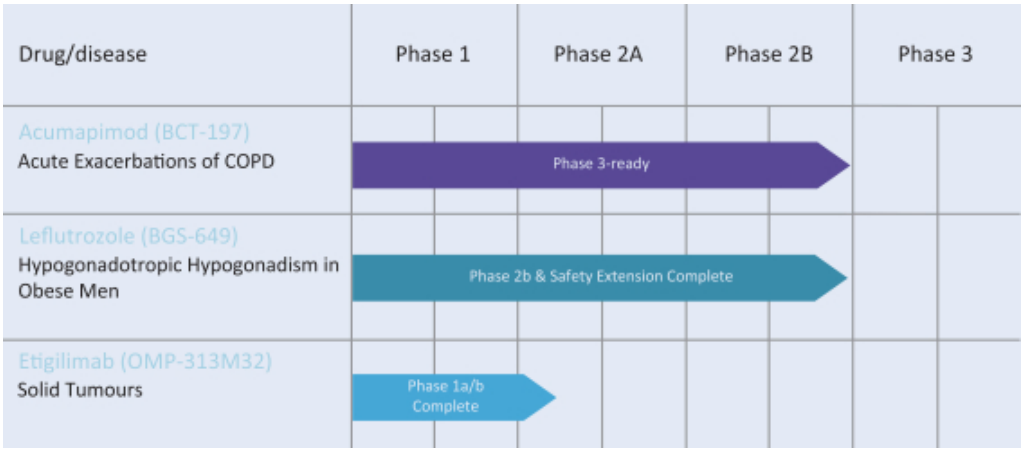
Our strategy is to selectively acquire product candidates for rare diseases that have already received significant investment from pharmaceutical and large biotechnology companies and that have substantial pre-clinical, clinical, and manufacturing data packages, with a focus on rare bone, endocrine, and respiratory diseases. Since our formation in March 2015, we have successfully executed on this strategy by acquiring our five clinical-stage product candidates, four of which were acquired from large pharmaceutical companies and one of which we recently acquired in the Merger. We also acquired a second clinical-stage product candidate in the Merger, which we have out-licensed to a third party. We aim to efficiently develop our product candidates through clinical development, and have commenced or completed large, randomized Phase 2 clinical trials for four of our product candidates.

The following table summarizes our product candidate pipeline. We have global commercial rights to setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab.

Rare Disease Product Candidate Pipeline



Non-Rare Disease Product Candidate Pipeline



Our team has extensive experience in the pharmaceutical and biotechnology sector in the identification, acquisition, development, manufacturing, and commercialization of product candidates in multiple therapeutic areas. Our senior management team has long-standing relationships with senior executives of large pharmaceutical companies, which we believe enhances our ability to identify and acquire additional product candidates.

Our portfolio consists of the following product candidates:

- **Setrusumab (BPS-804):** Setrusumab is a novel antibody we are developing as a treatment for OI, a rare genetic disease that results in bones that can break easily and is commonly

known as brittle bone disease. OI is a debilitating orphan disease for which there are no treatments approved by the FDA or EMA. It is estimated that OI affects a minimum of 20,000 people in the United States and approximately 32,000 people in Germany, Spain, France, Italy, and the United Kingdom. Setrusumab is designed to inhibit sclerostin, a protein that inhibits the activity of bone-forming cells. We believe setrusumab's mechanism of action is well suited for the treatment of OI and has the potential to become a novel treatment option for patients that could reduce fractures and improve patient quality of life.

In 2016, we obtained orphan drug designation in OI for setrusumab in the United States and the EU, in February 2017, setrusumab was accepted into the adaptive pathways program in the EU and, in November 2017, it was accepted into the Priority Medicines ("PRIME") scheme of the EMA. See "Business—Government Regulation—Foreign Government Regulation." Prior to our acquisition of setrusumab, Novartis Pharma AG ("Novartis") conducted four clinical trials in 106 patients and healthy volunteers. A Phase 2 clinical trial of setrusumab showed statistically significant improvements in bone formation biomarkers and bone mineral density. In May 2017, we initiated a Phase 2b clinical trial for setrusumab in adults in the United States, Europe and Canada. The trial is randomized with three blinded arms at a high, medium and low doses to establish the dose response curve and an open label arm at the top dose. We reported top-line data on the three blinded dose ranging arms in November 2019 with the results supporting progression of setrusumab into a pediatric pivotal study in OI. See "—Recent Developments—12-month top-line data from the setrusumab Phase 2b dose-ranging study in adult patients." Following the completion of the dosing part of the study, patients will continue to be followed for a further twelve months to examine the off-effects of setrusumab. We have also agreed on a pediatric investigational plan for setrusumab with the EMA and intend to prepare for a pivotal trial of setrusumab in Europe and Canada in children with severe OI in 2020, with fracture rate as the primary endpoint. We believe that the results from this trial, if favorable, will be sufficient to support the submission of a Marketing Authorization Application ("MAA") to the EMA for setrusumab for the treatment of children with severe OI and a CMA (as defined below) for the treatment of OI in adults in the EU.

The FDA approved the first sclerostin inhibitor for treatment of osteoporosis, romosozumab (Evenity), in April 2019 following an 18-1 favorable advisory committee vote. This was over a year after the FDA rejected our request for a Type C meeting to discuss the initiation of a pediatric Phase 3 study for setrusumab for the treatment of patients with severe OI. Based on these events and with our setrusumab Phase 2b efficacy and safety data in adult OI patients, we re-engaged with the FDA at the end of 2019 to discuss the expansion of the pivotal trial of setrusumab for the treatment of patients with severe OI to include sites in the United States. In February 2020, we announced the successful completion of a Type B End-of-Phase 2 meeting with the FDA to discuss the development of setrusumab for the treatment of children and adolescents with OI in the United States. See "—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA." In June 2019, the EMA's human medicines committee ("CHMP") adopted a negative opinion recommending the refusal of a marketing authorization for the same sclerostin inhibitor. However, in October 2019, following a re-examination procedure, the CHMP adopted a positive opinion recommending marketing authorization for the sclerostin inhibitor. In December 2019, the European Commission approved the MAA for romosozumab (Evenity).

- **Alvelestat (MPH-966):** Alvelestat is a novel, oral small molecule we are developing for the treatment of severe AATD, a potentially life-threatening, rare, genetic condition caused by a lack of effective alpha-1 antitrypsin ("AAT"), a protein that protects the lungs from enzymatic degradation. This degradation leads to severe debilitating diseases, including early-onset pulmonary emphysema, a disease that irreversibly destroys the tissues that support lung

function. There are an estimated 50,000 patients in North America and 60,000 patients in Europe with severe AATD. Alvelestat is designed to inhibit neutrophil elastase ("NE"), a neutrophil protease, which is a key enzyme involved in the destruction of lung tissue. We believe the inhibition of NE has the potential to protect AATD patients from further lung damage.

Prior to our license of alvelestat, AstraZeneca AB ("AstraZeneca") conducted 12 clinical trials involving 1,776 subjects, including trials in bronchiectasis and cystic fibrosis ("CF"). Although these trials were conducted in diseases other than AATD, we believe the data demonstrated potential clinical benefit and biomarker evidence of treatment effect for AATD patients. We have initiated a Phase 2 proof-of-concept clinical trial in patients with severe AATD in the United States and the EU and expect to report top-line data from this trial in mid-2020. We are also planning to evaluate the use of alvelestat to treat patients with bronchiolitis obliterans syndrome ("BOS") as a result of lung transplant. BOS is an orphan disease and the primary cause of death in adult lung transplant patients from one year following transplant.

- **Acumapimod (BCT-197):** Acumapimod is a p38 Mitogen-activated protein ("MAP") kinase inhibitor we are developing as an oral first-line acute therapy for patients with AECOPD. Chronic obstructive pulmonary disease ("COPD") is a non-fully-reversible, progressive lung disease in which inflammation plays a central role. There are an estimated 16 million people in the United States diagnosed with COPD. Of all hospital admissions in the United States related to COPD, approximately 63% are for AECOPD patients. We believe acumapimod offers a potential new treatment for controlling inflammation by targeting pathways that drive the pathological mechanism behind AECOPD.

  Since there are currently no approved therapies in the United States or the EU to treat AECOPD, we believe that there is significant medical need for a drug which is disease-modifying. We believe acumapimod could potentially prevent AECOPD instead of just treating the symptoms and has the potential to improve quality of life, slow the progression of the disease, and significantly reduce direct healthcare costs.

  Prior to our acquisition of acumapimod, Novartis conducted five clinical trials in 459 patients and healthy volunteers, including a Phase 2a trial in AECOPD patients that showed a clinically meaningful improvement in lung function at all doses and a statistically significant improvement in lung function at the highest dose.

  We conducted a Phase 2 dose-ranging clinical trial for acumapimod in 282 patients with AECOPD to explore two different dosing regimens on top of standard of care, which included steroids, antibiotics, and bronchodilators. Both dosing regimens showed a statistically significant change in the amount of air that can be forcibly exhaled in one second ("FEV1"), a standard measure of exhalation, from baseline to Day 7, meeting the trial's primary endpoint on an intent-to-treat patient population basis. In addition, dose-dependent, statistically significant reductions in high sensitivity C-reactive protein ("hsCRP") and fibrinogen were shown with treatment with acumapimod, with hsCRP remaining suppressed through the 26-week observation period. Treatment with acumapimod also showed a statistically significant reduction in the number of COPD exacerbations that required hospitalization. Consistent with these results, there was a significant reduction in the use of corticosteroid and antibiotics in the follow-up portion of the study. In addition, acumapimod was reported to be safe and well tolerated. Based on these results, we intend to explore strategic options with third parties for the further development of acumapimod.

  In addition, in April 2019, we announced a successful end of Phase 2 meeting with the FDA regarding acumapimod. In the meeting, we and the FDA agreed on a development plan for acumapimod. In September 2019, we had a positive Scientific Advice Working Party ("SAWP") meeting with the EMA.

- **Leflutrozole (BGS-649):** Leflutrozole is a once-weekly oral therapy we are developing for the treatment of HH in obese men. HH is a clinical syndrome that results from inadequate levels of testosterone. Based on World Health Organization ("WHO") estimates and scientific data, we estimate there are approximately seven million cases of HH in obese men in the United States. In these men, a decline in testosterone is exacerbated by high levels of the aromatase enzyme, which is present in fat tissue and leads to a reduction in testosterone. Leflutrozole is designed to inhibit the aromatase enzyme and is being developed to restore normal levels of testosterone without causing excessively high testosterone levels or reducing the levels of luteinizing hormone ("LH") or follicle stimulating hormone ("FSH"). Both LH and FSH play key roles in sperm formation and LH plays a key role in endogenous testosterone formation. In contrast to current therapies for HH, which involve the exogenous administration of testosterone and lead to further down regulation of LH and FSH, we believe that leflutrozole, by preserving sperm formation through LH and FSH production, may present a benefit to patients.

  Prior to our acquisition of leflutrozole, Novartis conducted seven clinical trials in 131 patients and healthy volunteers, including a Phase 2 proof-of-concept trial for HH in obese men in which leflutrozole normalized testosterone levels in all patients and demonstrated an increase in LH and FSH levels.

  In March 2018, we reported top-line data from our completed Phase 2b dose-ranging clinical trial of leflutrozole for the treatment of HH in obese men. The trial enrolled 271 patients who were administered placebo or one of three doses of leflutrozole. The trial met our primary endpoint of normalizing testosterone levels in at least 75% of subjects after 24 weeks of treatment and all of the secondary endpoints, including normalizing testosterone in at least 90% of patients after 24 weeks of treatment at the two highest doses and improvement in LH and FSH levels at all three doses. Leflutrozole was reported to be well-tolerated in the trial. A subset of 143 patients entered into a six-month safety extension study, with 88 patients completing the additional six months of treatment. The safety extension study was designed to examine if leflutrozole resulted in a pre-specified reduction in bone mineral density at 48 weeks following the initial 24 weeks treatment. In December 2018, we reported positive results from the safety extension study for leflutrozole. The study was successful in demonstrating that none of the doses of leflutrozole met the lower bound (95% confidence interval) of the pre-specified safety criterion of a greater than 3% reduction in lumbar spine bone mineral density after 48 weeks of treatment. In addition, there was no shift into clinical categories of osteopenia or osteoporosis, with no evidence of development of new osteopenia. The efficacy end points of testosterone, LH and FSH also showed improvements consistent with the main Phase 2b study. Following the positive result of the safety extension study for leflutrozole, we convened an advisory board meeting and concluded that the future development of leflutrozole should focus on male infertility. We intend to explore strategic options with third parties for the further development of leflutrozole.
- **Etigilimab (OMP-313M32)**: Etigilimab is an anti-TIGIT therapeutic candidate intended to activate the immune system through multiple mechanisms and enable anti-tumor activity. TIGIT (T-cell immunoreceptor with Ig and ITIM domains) is an inhibitory receptor that is thought to stop T-cells from attacking tumor cells. We acquired this therapeutic product candidate in the Merger. A Phase 1a/b clinical trial enrolled patients with advanced solid tumors into either a Phase 1a single-agent portion (dose escalation in all patients and expansion in selected tumor types) or Phase 1b combination portion in selected tumor types with nivolumab (dose escalation). 23 patients were treated in the Phase 1a dose escalation portion of the study and 10 patients were treated in the Phase 1b combination portion. Ten

percent of the patients in the Phase 1b portion had a response and 10% had stable disease. The study has now completed enrollment and a clinical study report ("CSR") is being drafted.

The etigilimab program (also referred to as the TIGIT program) was previously subject to an exclusive license option with Celgene as part of the Collaboration Agreement. See "Business—Material Agreements—Collaboration Agreement with Celgene." In June 2019, we announced that Celgene had notified OncoMed that Celgene had decided, in light of strategic product portfolio considerations, not to exercise its option to license etigilimab. The Collaboration Agreement was terminated with respect to etigilimab effective on October 11, 2019. As a result, we have worldwide rights to the etigilimab program.

See "Business—Material Agreements—Novartis Agreements" and "Business—Material Agreements—AstraZeneca Agreement" for important information regarding our license agreements with Novartis and AstraZeneca.

Recent Developments

12-month top-line data from the setrusumab Phase 2b dose-ranging study in adult patients

On November 11, 2019, we reported 12-month top-line data from our Phase 2b dose-ranging clinical trial for setrusumab in adults with Type I, III or IV OI.

The primary endpoint of the trial was change in trabecular volumetric bone mineral density ("Tr vBMD") of the radius (wrist) over baseline after 12 months of treatment as measured by high resolution peripheral quantitative computerized tomography ("HRpQCT"). As a result of the unexpected high heterogeneity of the trial patients' trabecular bone baseline values at the wrist (including both very low and very high trabecular bone at baseline as compared to the literature available), the primary endpoint was not met at any of the three setrusumab dose levels. HRpQCT is a relatively new imaging technique that has not been used widely in clinical studies and was chosen in order to improve the understanding of the effect of setrusumab on the bone biology in OI patients, given it can measure both trabecular and cortical volumetric BMD separately.

Importantly, when the percentage change in trabecular and cortical volumetric bone mineral density ("BMD") at the wrist were combined (the total volumetric BMD as measured by HRpQCT, a secondary endpoint of the study), an increase in total volumetric BMD was observed and reached statistical significance in the medium and high dose cohorts. Mean increases in total volumetric BMD were 4.11% ($p=0.004$), 4.5% ($p=0.028$), and 0.58% ($p=0.97$) in the high, medium, and low dose cohorts (post hoc analysis), respectively. This suggests total volumetric BMD increases were driven by the ability of setrusumab to increase cortical volumetric BMD.

The study achieved its important secondary endpoint of increase in areal BMD at the lumbar spine at six and 12 months over baseline using dual energy x-ray absorptiometry ("DXA"), a well-established measurement tool of BMD (cortical and trabecular bone), reaching statistical significance in the high and medium doses cohorts at both six and 12 months, with a clear dose-dependent response. Mean increases in areal BMD at the lumbar spine were 8.8% ($p<0.001$), 6.8 % ($p<0.001$), and 2.6% ($p=0.057$) in the high, medium, and low dose cohorts at 12 months, respectively. Moreover, increases in areal BMD were consistent across all OI subtypes (I, III and IV) represented in the study and improved with duration of treatment. Statistically significant changes in areal BMD were also observed by DXA at the femoral neck and total hip with mean increases of 3.1% ($p=0.022$) and 2.2% ($P=0.011$), respectively, at 12 months in the high dose cohort.

On January 14, 2020, we reported additional data to the above from our Phase 2b does-ranging clinical trial for setrusumab. This additional data demonstrated a dose dependent increase in bone strength (stiffness and failure load) as measured by Finite Element Analysis ("FEA"). This was a second prespecified primary end point and reached statistical significance in the high dose cohort. FEA is a technique that, based on the HRpQCT, allows for the estimation of physical properties of bone,

We also reported on the end point of Trabecular Bone Score (TBS) at the lumbar spine. Setrusumab demonstrated a statistically significant increase in TBS at both the high ($p<0.001$) and medium dose cohorts ($p<0.001$). TBS is a gray-level texture index determined from patient lumbar spine DXA scans that correlates with 3D parameters of trabecular bone architecture thought to help predict fracture.

Although the Phase 2b trial was not powered to show a difference in fracture rates, a trend of reduction in fractures was observed in the high-dose cohort. Setrusumab was safe and well-tolerated in the study. There were no cardiac-related safety concerns observed in the study.

The study enrolled 112 adults (69 with type I, 28 with type IV and 15 with type III OI) at 27 clinical sites across the United States and Europe and randomized patients originally to one of four different blinded monthly dosing regimens of setrusumab: high, medium, low and placebo. The study was subsequently revised to convert the placebo arm into an open-label arm where patients received the high dose regimen of setrusumab. Six-month results from this open-label arm were reported in May 2019 and presented at the American Society of Bone Mineral Research (ASBMR) Annual Meeting in September 2019. Patients in the open-label arm of the study have not yet completed 12 months of treatment with setrusumab, therefore the top-line 12-month results reported on November 11, 2019 and on January 14, 2020 are from the three-arm blinded portion of the study.

Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA

On February 28, 2020, we announced the successful completion of a Type B End-of-Phase 2 meeting with the FDA to discuss the development of setrusumab for the treatment of children and adolescents with OI. Following the review of the data from the our Phase 2b (ASTEROID) study with setrusumab in adults with OI, the FDA agreed on the design of a Phase 3 pediatric study in OI to be completed prior to the submission of a Biologics License Application ("BLA") in the United States. This is in line with our proposed pivotal pediatric study design that has already been agreed to in principle with the EMA. The Phase 3 pediatric study will include the following elements:

- a single study with two cohorts in approximately 160 children and adolescents ages 2 to <18 years diagnosed with Type I, II, III or IV OI and a confirmed genetic mutation leading to a collagen defect;
- a safety cohort with a limited number of patients will confirm the dose of setrusumab based on safety and the efficacy cohort will be a two-arm, randomized, double-blind, active control design of 12 months duration;
- in the efficacy cohort, participants will be randomized to one of two double-blinded study arms: in one arm participants will receive setrusumab at a dose equivalent to the high-dose arm utilized in the Phase 2b (ASTEROID) study and in the other arm, participants will receive a standardized bisphosphonate;
- primary endpoint of fracture rate versus active control following 12 months of treatment; and
- secondary endpoint of BMD at the lumbar spine at 12 months over baseline measured using two-dimensional DAX, bone biomarkers, patient reported outcomes (PRO) and quality of life measures.

Licensing Agreement for Navicixizumab

On January 13, 2020, we entered into a global license agreement with Oncologie, Inc. ("Oncologie") for the development and commercialization of Navicixizumab ("Navi"), an anti-DLL4/VEGF bispecific antibody currently being evaluated in an ongoing Phase 1b study in combination with paclitaxel in patients with advanced heavily pretreated ovarian cancer. Navi previously completed a Phase 1a monotherapy study in patients with various types of refractory solid tumors and is one of two product candidates we acquired through the Merger. In October 2019, the FDA granted Fast Track designation to Navi and has agreed in principle on the design of a study that could potentially support accelerated approval for Navi in a heavily pretreated, platinum-resistant ovarian cancer patient population.

Under the terms of the license agreement, Oncologie will receive an exclusive worldwide license to develop and commercialize Navi. We received an upfront payment of $4.0 million and will receive an additional payment of $2.0 million conditional on a CMC (Chemistry, Manufacturing and Controls) milestone. Oncologie will be responsible for all future research, development and commercialization of Navi. Additionally, we will be eligible to receive up to $300 million in future clinical, regulatory and commercial milestones, tiered royalties ranging from the mid-single-digit to sub-teen percentages on global annual net sales of Navi, as well as a negotiated percentage of sublicensing revenues from certain sublicensees.

As a consequence of the license agreement with Oncologie, and in accordance with the terms and conditions of the Contingent Value Rights Agreement for former stockholders of OncoMed, dated April 23, 2019, by and between us and Computershare Inc., as rights agent, (the "CVR Agreement"), holders of contingent value rights ("CVRs") pursuant to the CVR Agreement will be entitled to receive certain eligible cash milestone payments made to us under the license agreement relating to the development and commercialization of Navi. The receipt of the upfront milestone payment of $4.0 million by us in January 2020 will result in a payment to CVR holders of approximately 1.2 cents per CVR, a total of approximately $462,748 (after deductions of costs, charges and expenditures). It is expected this distribution will be made to CVR holders by March 17, 2020.

Holders of CVRs pursuant to the CVR Agreement will be entitled to receive additional eligible cash milestone payments made to us under the license agreement relating to Navi. Pursuant to the terms of the CVR Agreement, if a milestone occurs prior to the fifth anniversary of the closing of the Merger, then holders of CVRs will be entitled to receive an amount in cash equal to 70% of the aggregate principal amount received by us after deduction of costs, charges and expenditures. Such milestone payments are also subject to a cash consideration cap, pursuant to which the aggregate principal amount of all cash payments made to holders of CVRs under the CVR Agreement shall in no case exceed $79.7 million.

New Novartis Notes

On February 10, 2020, we entered into a £3,841,479 convertible loan note instrument with Novartis pursuant to which we issued Novartis 3,841,479 unsecured convertible loan notes (the "New Novartis Notes") and warrants to purchase 1,449,614 ordinary shares. See "Description of Share Capital and Articles of Association—Novartis Notes".

Aspire Capital Transaction

On February 10, 2020, we entered into a Purchase Agreement with Aspire Capital Fund, LLC, an Illinois limited liability company (referred to in this prospectus as "Aspire Capital"), which provides that,

upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $25.0 million worth of our ordinary shares that are exchangeable for ADSs over the approximately 30-month term of the Purchase Agreement. In addition, pursuant to the Purchase Agreement, Aspire Capital purchased 11,432,925 ordinary shares that are exchangeable for 2,286,585 ADSs for $3.0 million. In consideration for entering into the Purchase Agreement, concurrently with the execution of the Purchase Agreement, we paid Aspire Capital a commission fee of $300,000, which was wholly satisfied by the issuance to Aspire Capital of 2,862,595 ordinary shares that are exchangeable for 572,519 ADSs. See "The Aspire Capital Transaction."

Boxer Capital Transaction

On February 19, 2020, we entered into a securities purchase agreement with Boxer Capital, LLC (''Boxer Capital''). Under the terms of the agreement, Boxer Capital agreed to invest $3.0 million by purchasing 12,252,715 ordinary shares (equivalent to 2,450,543 ADSs) at a price equivalent to 18.8 pence per ordinary share, which represented a 20% discount to our closing share price of 23.5 pence on AIM on February 18, 2020. We intend to use the net proceeds from this private placement for general corporate purposes, including clinical trial activity and working capital. There are no warrants, derivatives, or other share classes associated with this transaction. Further, there are no restrictions on future financings and there are no financial covenants, participation rights, rights of first refusal, or penalties in the purchase agreement entered into in connection with this transaction.

Our Strategy

We intend to become a leading biopharmaceutical company developing innovative therapeutics that aim to improve outcomes for patients with rare bone, respiratory and endocrine diseases. The key elements of our strategy to achieve this goal include:

- ***Rapidly develop and directly commercialize our rare disease product candidates.*** We have completed and announced top-line data of a Phase 2b clinical trial of setrusumab for the treatment of OI in adults in the United States, Europe and Canada. We reported top-line data on the three blinded dose ranging arms in November 2019 with the results supporting progression of setrusumab into a pediatric pivotal study in OI. Following the completion of the dosing part of the study, patients will continue to be followed for a further 12 months to examine the off-effects of setrusumab. We have agreed on a pediatric investigational plan for setrusumab with the EMA and following our post Phase 2 meeting with the FDA in February 2020, we intend to prepare for a pivotal trial in the United States, EU and Canada in children with severe OI in 2020, with fracture as the primary end point. We believe the results from this trial, if favorable, will be sufficient to support the submission of a BLA in the United States and MAA in the EU for setrusumab for the treatment of children with severe OI and a conditional marketing authorization ("CMA") for the treatment of adults with OI. We have commenced a Phase 2 clinical trial of alvelestat for the treatment of severe AATD and expect to report top-line data from this trial in mid-2020. If the results are favorable and pending regulatory feedback, we intend to continue to develop alvelestat toward approval and commercialization. For setrusumab and alvelestat, if approved, and for any future product candidates for rare diseases, we intend either to establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize or co-commercialize these product candidates in major markets or potentially to outsource aspects of these functions to third parties or partners.

- ***Efficiently advance our non-rare disease product candidates and explore strategic relationships with third parties for further clinical development and/or commercialization or strategic sales or out-licensing.*** Based on the results from our Phase 2 clinical trial of acumapimod, we plan to enter into one or more strategic relationships with third parties for acumapimod to undertake the next phase of clinical development and, if approved, commercialization. In March 2018, we reported top-line Phase 2b data for leflutrozole for the treatment of HH and in December 2018, we reported positive results from the safety extension study for leflutrozole. We intend to explore strategic relationships with third parties for the further development and commercialization of leflutrozole. In addition, we plan to enter into strategic relationships with third parties for the further development of etigilimab, which we acquired in the Merger. Alternatively, we may seek to sell or out-license one or more of our non-rare disease product candidates.
- ***Leverage our expertise in business development to expand our pipeline of product candidates.*** Our senior management team has extensive relationships with large pharmaceutical and biotechnology companies. We intend to leverage these relationships to grow our pipeline with a focus on rare bone, endocrine, and respiratory diseases. We intend to continue to identify, acquire, develop, and ultimately commercialize novel product candidates that have received significant investment from large pharmaceutical companies. We will continue to focus on acquiring product candidates with either proof-of-concept clinical data in their target indications or with clinical data in a related indication and a strong scientific rationale that supports development in our target indication. Using a disciplined approach, we intend to continue building a diverse portfolio of product candidates that we believe have compelling market potential, robust pre-clinical, clinical, and manufacturing data packages, and a clear regulatory pathway.
- ***Continue to be a partner of choice for large pharmaceutical and biotechnology companies.*** We believe that we are a preferred partner for large pharmaceutical and biotechnology companies as they seek to unlock the potential in their development pipelines and deliver therapeutics to patients in areas of high unmet medical need. We have strong relationships with these companies, as evidenced by our agreements with Novartis and AstraZeneca as well as by the Merger, and a track record of structuring transactions that enable us to leverage our core capabilities while creating value for all stakeholders. We intend to continue to enter into strategic relationships that align our interests with those of pharmaceutical and large biotechnology companies and that we believe to be mutually beneficial.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. You should carefully consider all of the information set forth in this prospectus and, in particular, should evaluate the specific factors set forth under “Risk Factors” in deciding whether to invest in our ADSs. Among these important risks are the following:

- We have a limited operating history, have never generated any product revenue, have incurred significant operating losses since our inception, expect to incur significant operating losses for the foreseeable future, and may never achieve or maintain profitability.
- If we do not obtain adequate and timely funding, we may not be able to continue as a going concern.
- We may not be successful in our efforts to identify and acquire additional product candidates.

- We will need additional funding to complete the development of our current product candidates; to license, acquire, and develop future product candidates; and to commercialize our product candidates, if approved. If we are unable to raise capital when needed, we could be forced to delay, reduce, or eliminate research and development programs, any future commercialization efforts or acquisitions of potential product candidates.
- We depend heavily on the success of our product candidates, and we cannot give any assurance that our product candidates will receive regulatory approval for any indication, which is necessary before they can be commercialized.
- We are, and will continue to be, dependent on pre-clinical and clinical trials conducted prior to our acquisition of a product candidate having been conducted in compliance with all applicable regulatory requirements and clinical standards and the results having been accurately reported, including for trials conducted by Novartis, AstraZeneca and OncoMed for our current product candidates.
- Undesirable side effects that may be caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials, and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, the EMA, or other comparable foreign authorities.
- We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or at the commercial stage, and our product liability insurance may not cover all damages from such claims.
- We rely, and expect to continue to rely, on third parties to conduct our clinical trials and to manufacture our product candidates for pre-clinical and clinical testing, and those third parties may not perform satisfactorily and it may be difficult or time-consuming to replace them, which could delay our product development activities.
- If we are unable to adequately protect our technology, or to secure and maintain our freedom to operate or our issued patents protecting our product candidates, others could preclude us from commercializing our technology and product candidates or compete against us more directly.
- We face significant competition from other biotechnology and pharmaceutical companies.
- If we fail to comply with our obligations under our existing intellectual property licenses with Novartis or AstraZeneca or any other current or future intellectual property licenses with third parties, we could lose license rights that are important to our business, and our business may be substantially harmed as a result.
- The successful commercialization of our product candidates, if any, will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage, reimbursement levels, and pricing policies.
- We may not fully realize the anticipated benefits of the Merger or realize such benefits within the timing anticipated.
- There is a significant risk that we will be a passive foreign investment company (“PFIC”) for any taxable year, which could result in material adverse U.S. federal income tax consequences if you are a U.S. investor.
- As a foreign private issuer, we are exempt from a number of rules under the U.S. securities laws and Nasdaq corporate governance rules and are permitted to file less information with the SEC than U.S. domestic public companies, which may limit the information available to holders of our ADSs.
- Circumstances affecting Woodford Investment Management Limited may have a material adverse impact on the price of our ADSs and ordinary shares.

Implications of Being an Emerging Growth Company and a Foreign Private Issuer

Emerging Growth Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). As an emerging growth company we have chosen to take advantage of certain exemptions from various reporting requirements that are applicable to other publicly traded entities that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements (i.e., an auditor discussion and analysis);
- not being required to submit certain executive compensation matters to shareholder advisory votes, such as "say-on-pay," "say-on-frequency," and "say-on-golden parachutes;" and
- not being required to disclose certain executive compensation related items such as the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to median employee compensation.

We may take advantage of these provisions until the earliest of: (i) the last day of the first fiscal year in which our annual gross revenues exceed $1.07 billion; (ii) the last day of 2024; (iii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common equity held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter; or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during any three-year period.

As a result, we do not know if some investors will find our ADSs less attractive. The result may be a less active trading market for our ADSs, and the price of our ADSs may become more volatile.

Foreign Private Issuer

We report under the Exchange Act as a non-U.S. company with foreign private issuer status. Even after we no longer qualify as an emerging growth company, as long as we qualify as a foreign private issuer under the Exchange Act we will be exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic public companies, including:

- the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q containing unaudited financial and other specific information, or current reports on Form 8-K, upon the occurrence of specified significant events.

Both foreign private issuers and emerging growth companies also are exempt from certain more stringent executive compensation disclosure rules. Thus, even if we no longer qualify as an emerging growth company, but remain a foreign private issuer, we will continue to be exempt from the more stringent compensation disclosures required of companies that are neither an emerging growth company nor a foreign private issuer.

As a foreign private issuer, we are permitted to follow the corporate governance practices of our home country in lieu of certain provisions of the Nasdaq. We therefore follow U.K. corporate governance practices in lieu of certain Nasdaq corporate governance requirements including the requirement to seek shareholder approval for a specified issuance of securities.

Corporate Information

We were incorporated as a private limited company with the legal name Mereo BioPharma Group Limited under the laws of England and Wales on March 10, 2015 with the company number 09481161. On June 3, 2016, we re-registered as a public limited company with the legal name Mereo BioPharma Group plc. Our registered office address is Fourth Floor, One Cavendish Place, London, W1G 0QF, United Kingdom and our telephone number is +44 (0) 33 3023 7300. Our website address is www.mereobiopharma.com. The information contained on, or that can be accessed from, our website does not form part of this prospectus. Our agent for service of process in the United States is Mereo US Holdings Inc.

The Offering	
ADSs offered by the selling shareholder:	Up to 17,902,082 ADSs, each representing five (5) ordinary shares.
Ordinary shares outstanding	112,255,142 ordinary shares as of February 11, 2020, including ordinary shares in the form of ADSs.
American Depositary Shares	Each ADS represents five (5) ordinary shares, nominal value £0.003 per ordinary share. As an ADS holder, you will not be treated as one of our shareholders and you will not have shareholder rights. You will have the rights of an ADS holder or beneficial owner of ADSs as provided in the deposit agreement among us, the depositary, and all holders and beneficial owners of ADSs issued thereunder. To better understand the terms of our ADSs, see “Description of American Depositary Shares.” We also encourage you to read the deposit agreement, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part.
Depositary	Citibank, N.A.
Use of proceeds	The selling shareholder will receive all of the proceeds from the sale of the ADSs offered for sale by it under this prospectus. We will not receive proceeds from the sale of the ADSs by the selling shareholder. However, we may receive up to $28.0 million in proceeds from the sale of our ordinary shares exchangeable for ADSs to the selling shareholder under the Purchase Agreement described below, which includes the $3.0 million that we received from the selling shareholder for the sale of 11,432,925 ordinary shares exchangeable for 2,286,585 ADSs to the selling shareholder. We intend to use any proceeds from the selling shareholder that we received under the Purchase Agreement, together with our existing cash, short-term deposits and short-term investments, to advance the clinical development of setrusumab and alvelestat, and the remainder to fund general research and development activities, working capital and other general corporate purposes. See “Use of Proceeds.”
Risk factors	See “Risk Factors” and the other information included in this prospectus for a discussion of factors you should consider before deciding to invest in our ADSs.
Nasdaq trading symbol	“MREO”
AIM trading symbol	“MPH”

On February 10, 2020, we entered into a Purchase Agreement with Aspire Capital, which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $25.0 million worth of our ordinary shares that are exchangeable for ADSs over the approximately 30-month term of the Purchase Agreement. In addition, pursuant to the Purchase Agreement, Aspire Capital purchased the Initial Shares of 11,432,925 ordinary shares that are exchangeable for 2,286,585 ADSs for $3.0 million. In consideration for entering into the Purchase Agreement, concurrently with the execution of the Purchase Agreement, we paid Aspire Capital a commission fee of $300,000, which was wholly satisfied by the issuance to Aspire Capital of the Commission Shares of 2,862,595 ordinary shares that are exchangeable for 572,519 ADSs. Concurrently with entering into the Purchase Agreement, we also entered into a registration rights agreement with Aspire Capital (referred to in this prospectus as the "Registration Rights Agreement"), in which we agreed to file one or more registration statements, including the registration statement of which this prospectus is a part, as permissible and necessary to register under the Securities Act, the sale of the ADSs that have been and may be issued to Aspire Capital under the Purchase Agreement.

As of February 11, 2020, there were 112,255,142 ordinary shares outstanding (approximately 35% held by non-affiliates), which includes the Initial Shares of 11,432,925 ordinary shares exchangeable by the selling shareholder for 2,286,585 ADSs that have already been issued to Aspire Capital, (ii) the Commission Shares of 2,862,595 ordinary shares exchangeable by the selling shareholder for 572,519 ADSs that were issued to Aspire Capital in satisfaction of the commission fee of $300,000 due to Aspire Capital under the Purchase Agreement, and excludes the $25.0 million worth of our ordinary shares that are exchangeable for ADSs issuable to Aspire Capital pursuant to the Purchase Agreement. The number of ADSs representing ordinary shares ultimately offered for sale by Aspire Capital is dependent upon the number of ADSs purchased by Aspire Capital under the Purchase Agreement.

Pursuant to the Purchase Agreement and the Registration Rights Agreement, we are registering 89,510,410 ordinary shares represented by 17,902,082 ADSs under the Securities Act, which includes (i) the Initial Shares of 11,432,925 ordinary shares exchangeable by the selling shareholder for 2,286,585 ADSs that have already been issued to Aspire Capital, (ii) the Commission Shares of 2,862,595 ordinary shares exchangeable by the selling shareholder for 572,519 ADSs that were issued to Aspire Capital in satisfaction of the commission fee of $300,000 due to Aspire Capital under the Purchase Agreement, and (iii) up to $25.0 million worth of ordinary shares that are exchangeable for ADSs that we may issue to Aspire Capital after this registration statement is declared effective under the Securities Act. All of ADSs representing ordinary shares issuable to Aspire Capital under the Purchase Agreement are being offered pursuant to this prospectus.

After the SEC has declared effective the registration statement of which this prospectus is a part, on any business day on which the closing sale price of our ADSs is not less than $0.25 per share, we have the right, in our sole discretion, to present Aspire Capital with a purchase notice (each, a "Purchase Notice"), directing Aspire Capital (as principal) to purchase up to 150,000 ADSs per business day, up to $25.0 million worth of our ordinary shares that are exchangeable for ADSs in the aggregate over the term of the Purchase Agreement, at a per ADS price (the "Purchase Price") calculated by reference to the prevailing market price of our ADSs over the preceding 10-business day period (as more specifically described below); however, no sale pursuant to a Purchase Notice may exceed $0.5 million per business day.

In addition, on any date on which we submit a Purchase Notice to Aspire Capital for at least 150,000 ADSs, we also have the right, in our sole discretion, to present Aspire Capital with a volume-

weighted average price purchase notice (each, a “VWAP Purchase Notice”) directing Aspire Capital to purchase an amount of ADSs equal to up to 30% of the aggregate of the Company’s ADSs traded on the Nasdaq on the next business day (the “VWAP Purchase Date”) but not more than 250,000 ADSs, subject to a maximum number of ADSs we may determine (the “VWAP Purchase ADS Volume Maximum”) and a minimum trading price (the “VWAP Minimum Price Threshold”) (as more specifically described below). The purchase price per ADS pursuant to such VWAP Purchase Notice (the “VWAP Purchase Price”) is calculated by reference to the prevailing market price of our ADSs (as more specifically described below).

The Purchase Agreement provides that the Company and Aspire Capital shall not effect any sales under the Purchase Agreement on any purchase date where the closing sale price of our ADSs is less than $0.25 per ADS (the “Floor Price”). This Floor Price and the respective prices and ADS numbers in the preceding paragraphs shall be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction. There are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our ADSs to Aspire Capital. Aspire Capital has no right to require any sales by us, but is obligated to make purchases from us as we direct in accordance with the Purchase Agreement. There are no limitations on use of proceeds, financial or business covenants, restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement. Aspire Capital may not assign its rights or obligations under the Purchase Agreement. The Purchase Agreement may be terminated by us at any time, at our discretion, without any penalty or cost to us.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables set forth our summary consolidated financial data for the periods and as of the dates indicated. We have derived the consolidated statement of comprehensive loss data for the years ended December 31, 2018, 2017 and 2016 and the consolidated balance sheet data as of December 31, 2018 and 2017 from our audited consolidated financial statements included in this prospectus. Consolidated balance sheet data as of December 31, 2016 is derived from other consolidated financial statements not included in this prospectus. We have derived the unaudited consolidated statement of comprehensive loss data for the six-month periods ended June 30, 2019 and 2018 and the unaudited consolidated balance sheet data as of June 30, 2019 from our unaudited interim consolidated financial statements included in this prospectus, which have been prepared in accordance with IAS 34 as issued by the IASB. In the opinion of management, the unaudited interim consolidated financial statements reflect all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of the financial information in those statements. Our historical results are not necessarily indicative of the results that should be expected for any future period. You should read the following summary consolidated financial data together with the audited and unaudited consolidated financial statements included in this prospectus and the sections titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Unaudited Pro Forma Condensed Combined Financial Information.”

We maintain our books and records in pounds sterling, and we prepare our financial statements in accordance with IFRS as issued by the IASB. We report our financial results in pounds sterling. For the convenience of the reader, we have translated pound sterling amounts in the tables below into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on June 28, 2019, which was £1.00 to $1.2704. These translations should not be considered representations that any such amounts have been, could have been, or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

	Year Ended December 31,						Six months ended June 30,			
	2016		2017		2018		2018		2019	
	(£)	($)	(£)	($)	(£)	($)	(£)	($)	(£)	($)
	(in thousands, except per ordinary share data)						(unaudited)			
Consolidated Statement of Comprehensive Loss Data:										
Research and development expenses	(24,563)	(31,204)	(34,607)	(43,964)	(22,704)	(28,843)	(10,864)	(13,802)	(11,918)	(15,141)
General and administrative expenses	(11,617)	(14,758)	(10,697)	(13,590)	(12,505)	(15,886)	(7,102)	(9,022)	(6,462)	(8,209)
Operating loss	(36,180)	(45,962)	(45,304)	(57,554)	(35,209)	(44,729)	(17,966)	(22,824)	(18,380)	(23,350)
Net income recognized on acquisition of subsidiary	—	—	—	—	—	—	—	—	1,035	1,315
Finance income	375	476	827	1,050	307	390	151	192	137	174
Finance charge	(180)	(228)	(1,090)	(1,385)	(2,361)	(2,999)	(1,587)	(2,016)	(1,454)	(1,847)

	Year Ended December 31,						Six months ended June 30,			
	2016		2017		2018		2018		2019	
	(£)	($)	(£)	($)	(£)	($)	(£)	($)	(£)	($)
	(in thousands, except per ordinary share data)									
							(unaudited)			
Net foreign exchange gain/(loss)	2,263	2,874	(1,384)	(1,759)	(44)	(56)	49	63	(20)	(26)
Net loss before tax	(33,722)	(42,840)	(46,951)	(59,648)	(37,307)	(47,394)	(19,353)	(24,585)	(18,682)	(23,734)
Taxation	5,331	6,773	8,152	10,357	5,278	6,704	2,365	3,004	2,459	3,123
Loss attributable to equity holders of Mereo	(28,391)	(36,067)	(38,799)	(49,291)	(32,029)	(40,690)	(16,988)	(21,581)	(16,223)	(20,611)
Fair value changes on investments held at fair value through OCI	—	—	—	—	—	—	—	—	88	112
Currency translation of foreign operations	—	—	—	—	—	—	—	—	711	903
Total comprehensive loss attributable to equity holders of Mereo	(28,391)	(36,067)	(38,799)	(49,291)	(32,029)	(40,690)	(16,988)	(21,581)	(15,424)	(19,596)
Basic and diluted loss per ordinary share	(0.63)	(0.80)	(0.56)	(0.71)	(0.45)	(0.57)	(0.24)	(0.30)	(0.22)	(0.28)

	As of December 31,						As of June 30,	
	2016		2017		2018		2019	
	(£)	($)	(£)	($)	(£)	($)	(£)	($)
	(in thousands)						(unaudited)	
Consolidated Balance Sheet Data:								
Cash and short-term deposits and short-term investments	53,578	68,065	52,545	63,577	27,541	34,989	36,118	45,884
Total assets	86,765	110,226	96,335	122,385	67,276	85,468	107,141	136,112
Issued capital	193	245	213	271	214	272	294	373
Share premium	99,975	127,009	118,227	150,196	118,492	150,532	121,684	154,588
Accumulated loss	(40,579)	(51,552)	(79,316)	(100,763)	(111,221)	(141,295)	(127,356)	(161,794)
Total equity	79,257	100,688	62,483	79,379	32,771	41,632	59,031	74,994
Total liabilities	7,508(1)	9,538	33,852(2)	43,006	34,505(3)	43,836	48,110	61,119
Total equity and liabilities	86,765	110,226	96,335	122,385	67,276	85,468	107,141	136,113

(1) Includes £3.1 million ($3.9 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

(2) Includes £2.0 million ($2.5 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

(3) Includes £2.0 million ($2.5 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

SUMMARY UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following summary unaudited pro forma condensed combined financial information is derived from the unaudited pro forma condensed combined statement of operations for the year ended December 31, 2018 and the six months ended June 30, 2019, after giving effect to the Merger as if it had occurred on January 1, 2018.

The summary unaudited pro forma condensed combined statement of operations has been prepared using the principles of the acquisition method of accounting in accordance with IFRS as issued by the IASB, and in particular IFRS 3—Business Combinations ("IFRS 3"), under which the Merger qualifies as the acquisition of OncoMed by us.

The summary unaudited pro forma condensed combined statement of operations has been prepared by Mereo's management in accordance with SEC Regulation S-X Article 11 for illustrative purposes only. The unaudited pro forma condensed combined statement of operations does not purport to represent what our actual results of operations would have been had the Merger occurred on the date assumed, nor is it indicative of the future results of the combined company. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2018 and the six months ended June 30, 2019 does not reflect any cost savings, operating synergies or revenue enhancements that the combined company may achieve as a result of the Merger. The pro forma adjustments reflected in the summary unaudited pro forma condensed combined statement of operations reflect estimates and assumptions made by Mereo's management that Mereo believes to be reasonable.

For the convenience of the reader and except as otherwise indicated, we have translated pound sterling amounts in the tables below into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on June 28, 2019, which was £1.00 to $1.2704. These translations should not be considered representations that any such amounts have been, could have been, or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

The following summary unaudited pro forma condensed combined statement of operations should be read in conjunction with the information contained in “Unaudited Pro Forma Condensed Combined Financial Information,” “Risk Factors,” “Cautionary Statement Regarding Forward-Looking Statements,” “Selected Consolidated Financial Data of Mereo,” “Business,” and our consolidated financial statements included elsewhere in this prospectus.

	Pro Forma Condensed Combined Statement of Operations			
	Year Ended December 31, 2018		Six Months Ended June 30, 2019	
	(£)	($)	(£)	($)
	(unaudited, in thousands, except per ordinary share data)			
Consolidated Statement of Comprehensive Loss Data:				
Collaboration and other revenue	33,243	42,232	3,288	4,177
Research and development expenses	(48,285)	(61,341)	(16,434)	(20,878)
General and administrative expenses	(23,476)	(29,824)	(10,827)	(13,755)
Operating loss	(38,518)	(48,933)	(23,973)	(30,455)
Finance income	1,476	1,875	390	495
Finance charge	(2,361)	(2,999)	(1,953)	(2,481)
Net foreign exchange gain/(loss)	(44)	(56)	(20)	(25)
Net loss before tax	(39,447)	(50,113)	(25,556)	(32,466)
Taxation	5,563	7,067	2,445	3,106
Loss attributable to equity holders of Mereo	(33,884)	(43,046)	(23,111)	(29,360)
Total comprehensive loss attributable to equity holders of Mereo	(33,884)	(43,046)	(23,111)	(29,360)
Basic and diluted loss per ordinary share	(0.35)	(0.44)	(0.24)	(0.30)

RISK FACTORS

You should carefully consider the risks and uncertainties described below and the other information in this prospectus before making an investment in our ADSs. Our business, financial condition, results of operation, or prospects could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our ADSs could decline and you could lose all or part of your investment. This prospectus also contains forward-looking statements that involve risks and uncertainties. See "Cautionary Statement Regarding Forward-Looking Statements." Our actual results could differ materially and adversely from those anticipated in these forward-looking statements as a result of certain factors, including those set forth below.

Risks Related to Our Business and Industry

We have a limited operating history and have never generated any product revenue.

We are a multi-asset, clinical-stage biopharmaceutical company with a limited operating history, and have incurred significant operating losses since our formation. We had net losses of £16.2 million in the six months ended June 30, 2019 (£17.0 million in the six months ended June 30, 2018), and £32.0 million, £38.8 million and £28.4 million, in the years ended December 31, 2018, 2017 and 2016, respectively. As of June 30, 2019, we had an accumulated net loss of £127.4 million (£111.2 million as of December 31, 2018). Our losses have resulted principally from expenses incurred from the research and development of our product candidates and from general and administrative costs that we have incurred while building our business infrastructure. We expect to continue to incur significant operating losses for the foreseeable future as we expand our research and development efforts, and seek to obtain regulatory approval and potentially commercialize our product candidates. We anticipate that our expenses will increase substantially as we:

- continue to conduct our ongoing Phase 2b clinical trial of setrusumab for the treatment of OI, which currently involves a 12-month period during which the off-effects of setrusumab will be examined following the top-line data read out in 2019;
- continue to conduct our ongoing Phase 2 clinical trial of alvelestat for the treatment of severe AATD;
- prepare for a pivotal trial of setrusumab in the United States, Europe and Canada in children with severe OI in 2020, with fracture rate as the primary endpoint;
- seek to acquire additional novel product candidates to treat rare diseases;
- seek regulatory approvals for our product candidates;
- potentially establish a commercial infrastructure and work with contract manufacturing organizations ("CMOs") to scale up manufacturing processes to commercialize or co-commercialize selected product candidates, if approved;
- maintain, expand, and protect our intellectual property portfolio;
- secure, maintain, or obtain freedom to operate for our technologies and product candidates;
- add clinical, scientific, operational, financial, and management personnel, including personnel to support the development of our product candidates and potential future commercialization or co-commercialization efforts; and
- expand our operations in the United Kingdom and potentially hire additional employees in the United States and in Europe, territories where we anticipate direct commercialization or commercialization with a partner.

Our expenses may also increase substantially if we experience any delays or encounter any issues with any of the above, including, but not limited to, failed clinical trials, complex results, safety issues, or unforeseen regulatory challenges.

We have devoted substantially all of our financial resources and efforts to the acquisition and clinical development of our product candidates. We have not completed the clinical development of any product through approval and have never generated any product revenue.

To become and remain profitable, we must succeed in developing and commercializing product candidates that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing clinical trials of our current or any future product candidates, obtaining regulatory approval for our product candidates that successfully complete clinical trials, establishing manufacturing supplies and marketing capabilities, and ultimately commercializing or entering into strategic relationships for our current and future product candidates, if approved. We are only in the preliminary stages of many of these activities. We may never succeed in these activities and, even if we do, we may never generate revenue that is significant enough to achieve profitability.

Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. We may be subject to different or contradictory regulatory requirements in different countries, and different regulatory authorities may not be aligned on the clinical trials necessary to support approval of our product candidates. If we are required by the FDA, the EMA, or other regulatory authorities to perform studies in addition to those we currently anticipate, or if there are any delays in completing our clinical trials or the development of our current product candidates, our expenses could increase and our ability to generate revenue could be further delayed. In addition, we may not be able to acquire new product candidates or may encounter unexpected difficulties or delays in such acquisitions, which would impair our business.

Furthermore, adoption by the medical community of our product candidates, if approved, may be limited if third-party payors offer inadequate reimbursement coverage. Cost control initiatives may decrease coverage and payment levels for our product candidates, which in turn would negatively affect the price that we will be able to charge for such product candidates. We are unable to predict the coverage that will be provided by private or government payors for any product we have in development. Any denial of private or government payor coverage, inadequate reimbursement for our product candidates, or delay in receipt of reimbursement payments could harm our business and, even if we do generate product royalties or product sales, we may never achieve or sustain profitability. Our failure to sustain profitability would depress the market price of our ADSs and ordinary shares and could impair our ability to raise capital, acquire new product candidates, expand our business, or continue our operations. A decline in the market price of our ADSs or ordinary shares also could cause you to lose all or a part of your investment.

If we do not obtain adequate and timely funding, we may not be able to continue as a going concern.

Under the current business plan and cash flow forecasts, with ongoing research and development efforts focused on our rare disease product candidates, setrusumab and alvelestat, and taking into account the funds raised from Novartis, Aspire Capital and Boxer Capital, together with other current short-term initiatives including the successful finalization of the current HM Revenue & Customs (“HMRC”) enquiries in respect of our research and development tax claim relating to fiscal year 2018, we expect that our cash resources will extend to the end of the first half of 2020. Therefore, we will need additional external funding by the end of the first half of 2020 to be able to continue as a going concern.

We will seek to obtain such funding from further equity financings, collaborations, licensing arrangements and potentially from the utilization of all or part of the additional $25.0 million we may receive from Aspire Capital pursuant to the Purchase Agreement, additional or restructured debt facilities or other sources. We also intend to raise additional equity capital in one or more transactions

with institutional investors on terms substantially similar to the terms of Aspire Capital's purchase of the Initial Shares. There is no guarantee that future funding will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise sufficient external funding when needed, we could be forced to delay, reduce or eliminate our intended activities.

The unaudited interim consolidated financial statements as of and for the six-month period ended June 30, 2019 included elsewhere in this prospectus have been prepared on a going concern basis; however, they make reference to a material uncertainty as to our ability to continue as a going concern because further funding was not committed at the date of approval of those unaudited interim consolidated financial statements. In addition, as only limited additional funding from the New Novartis Notes, the Purchase Agreement with Aspire Capital and the private placement with Boxer Capital has been secured as at the date of this prospectus, there remains a material uncertainty as to our ability to continue as a going concern. If we are unable to obtain adequate and timely funding such that the going concern basis of preparation were no longer appropriate, we would be required to make adjustments to our financial statements, which adjustments could include significant reductions in the balance sheet values of our assets to their recoverable amounts and the recognition of significant provisions for further liabilities that might arise.

We will need additional funding to complete the development of our current product candidates; to license, acquire, and develop future product candidates; and to commercialize our product candidates, if approved. If we are unable to raise capital when needed, we could be forced to delay, reduce, or eliminate research and development programs, any future commercialization efforts or acquisitions of potential product candidates.

We have based our liquidity and capital resources estimates on assumptions that may prove to be wrong. As a result, we could use our capital resources sooner than we currently expect, or our operating plan may change as a result of many factors unknown to us. These factors, among others, may necessitate that we seek additional capital sooner than currently planned.

Our future capital requirements will depend on many factors, including:

- the costs, timing, and results of our ongoing Phase 2b clinical trial and our planned pivotal pediatric study for setrusumab and our ongoing Phase 2 clinical trial for alvelestat;
- the costs and timing of manufacturing clinical supplies of our product candidates;
- the costs, timing, and outcome of regulatory review of our product candidates, including post-marketing studies that could be required by regulatory authorities;
- the costs, timing, and outcome of potential future commercialization activities, including manufacturing, marketing, sales, and distribution, for our product candidates that we commercialize directly;
- the timing and amount of revenue, if any, received from commercial sales of our product candidates;
- the costs and timing of preparing, filing, and prosecuting patent applications; maintaining and enforcing our intellectual property rights; and defending any intellectual property-related claims, including any claims by third parties that we are infringing, misappropriating or otherwise violating the third party's intellectual property rights;
- the sales price and availability of adequate third-party coverage and reimbursement for our product candidates;
- the effect of competitors and market developments;
- the extent to which we are able to acquire new product candidates or enter into licensing or collaboration arrangements for our product candidates, although we currently have no commitments or agreements to complete any such transactions;

- milestone and deferred payments under our license and option agreement with AstraZeneca; and
- our ability to satisfy HMRC's enquiries with respect to our fiscal year 2018 research and development tax credit claim and claims in respect of fiscal year 2019 and future years.

Furthermore, we expect to incur additional costs associated with operating as a public company in the United Kingdom and the United States and maintaining a quotation and listing, respectively, on the AIM and Nasdaq.

Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations.

Fundraising and business development efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. Moreover, the terms of any financing may adversely affect our business, the holdings or the rights of our shareholders, or the value of our ADSs and ordinary shares.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay, or discontinue our research and development programs or any commercialization efforts; be unable to expand our operations or acquire product candidates; or be unable to otherwise capitalize on our business opportunities, as desired, which could harm our business and potentially force us to discontinue operations. See "—If we do not obtain adequate and timely funding, we may not be able to continue as a going concern."

Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Since our formation, we have devoted substantially all of our resources to acquiring our product candidates and developing setrusumab, alvelestat, acumapimod, and leflutrozole; building our intellectual property portfolio; developing our supply chain; planning our business; raising capital; and providing general and administrative support for these operations. We have not yet demonstrated our ability to successfully complete any Phase 3 or other pivotal clinical trials, obtain regulatory approval, arrange for third parties to manufacture commercial-scale product candidates, or conduct or partner with others to conduct sales and marketing activities necessary for successful product commercialization. Additionally, although we have acquired product candidates from two large pharmaceutical companies, we have not demonstrated the sustainability of our business model of acquiring and developing product candidates from, and becoming a partner of choice for, large pharmaceutical companies, nor have we demonstrated our ability to obtain approvals for or to commercialize or co-commercialize these product candidates. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

We may not be successful in our efforts to identify and acquire additional product candidates.

Part of our strategy involves identifying and acquiring novel product candidates that have received significant investment from large pharmaceutical companies and that have substantial pre-clinical, clinical, and manufacturing data packages. The process by which we identify product candidates may fail to yield product candidates for clinical development for a number of reasons, including those discussed in these risk factors and also:

- any product candidates we acquire that have generated positive clinical data for our target indication or in diseases other than our target indications may not prove to be effective in treating our target indications;

- potential product candidates may, with further studies, be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be product candidates that will receive marketing approval and achieve market acceptance;
- the regulatory pathway for a potential product may be too complex and difficult to navigate successfully or economically; and
- there may be competitive bids for potential product candidates which we do not seek to or are unable to match.

In addition, we may choose to focus our efforts and resources on a potential product that ultimately proves to be unsuccessful. Further, time and resources spent searching for, identifying, acquiring, and developing potential product candidates may distract our management's attention from our primary business or other development programs. If we are unable to identify and acquire additional suitable product candidates for clinical development, this would adversely impact our business strategy and our financial position and share price.

Raising additional capital may cause dilution to, or adversely affect the rights of, our security holders, restrict our operations; or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial product revenues, we may seek to finance our cash needs through securities offerings, debt financings, license and collaboration agreements, or other capital raising transactions. If we raise capital through securities offerings, your ownership interest will be diluted, and the terms of the securities we issue in such transaction may include liquidation or other preferences that adversely affect your rights as a holder of our ADSs. Debt financing, if available, could result in fixed payment obligations, and we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, to acquire, sell or license intellectual property rights, to make capital expenditures, to declare dividends, or other operating restrictions. For example, our credit facility with Silicon Valley Bank and Kreos Capital V (UK) Limited (the "credit facility") requires us to seek consent for certain corporate transactions, dispositions, or incurrences of certain debt. In addition, the credit facility is secured by substantially all of our assets, including intellectual property rights owned or controlled by us. If we raise additional funds through collaboration or licensing agreements, we may have to relinquish valuable rights to our technologies, future revenue streams, or product candidates or grant licenses on terms that may not be favorable to us. In addition, we could also be required to seek funds through arrangements with collaborators or others at an earlier stage than otherwise would be desirable. Raising additional capital through any of these or other means could adversely affect our business and the holdings or rights of our security holders, and may cause the market price of our ADSs and ordinary shares to decline.

We depend heavily on the success of setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab. We cannot give any assurance that any of these product candidates or therapeutic candidates will receive regulatory approval, which is necessary before they can be commercialized. If we are unable to commercialize, whether on our own or through agreements with third parties, setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab or experience significant delays in doing so, our ability to generate revenue and our financial condition will be adversely affected.

We do not currently generate any revenue from sales of any product candidates, and we may never be able to develop or commercialize a marketable product. We have invested substantially all of our efforts and financial resources in the acquisition and development of setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab. Our ability to generate royalty and product revenues, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful development and eventual commercialization of our current product candidates, if approved, which may never occur. Our current product candidates will require additional clinical

development, management of clinical and manufacturing activities, regulatory approval in multiple jurisdictions, procurement of manufacturing supply, commercialization, substantial additional investment, and significant marketing efforts before we generate any revenue from product sales. For example, we have agreed on a pediatric investigational plan ("PIP") for setrusumab with the EMA and intend to prepare for a pivotal trial of setrusumab in Europe and Canada in children with severe OI in 2020, with fracture rate as the primary endpoint. We have also discussed with the FDA the expansion of the pivotal trial of setrusumab for the treatment of patients with severe OI to include sites in the United States. However, our pediatric plan for setrusumab may not be successful, which would adversely affect the clinical development of setrusumab in the United States and adversely affect our commercialization plans in the United States.

We are not permitted to market or promote any product candidates in the United States, Europe, or other countries before we receive regulatory approval from the FDA, the EMA, or comparable foreign regulatory authorities, and we may never receive such regulatory approval for our current product candidates. We have not submitted a BLA or a New Drug Application ("NDA") to the FDA, an MAA or CMA to the EMA, or comparable applications to other regulatory authorities, and do not expect to be in a position to do so in the foreseeable future. The success of our current product candidates will depend on many factors, including the following:

- we may not be able to demonstrate that any of our current product candidates is safe and effective as a treatment for the targeted indications to the satisfaction of the applicable regulatory authorities;
- the applicable regulatory authorities may require additional clinical trials of our current product candidates, which would increase our costs and prolong development;
- the results of clinical trials of our current product candidates may not meet the level of statistical or clinical significance required by the applicable regulatory authorities for marketing approval;
- the applicable regulatory authorities may disagree with the number, design, size, conduct, or implementation of our planned and future clinical trials for our current product candidates;
- the contract research organizations ("CROs"), that we retain to conduct clinical trials may take actions outside of our control that materially adversely impact clinical trials for our current product candidates;
- the applicable regulatory authorities may not find the data from clinical trials sufficient to demonstrate that the clinical and other benefits of our current product candidates outweigh their safety risks;
- the applicable regulatory authorities may disagree with our interpretation of data from our clinical trials or may require that we conduct additional trials;
- the applicable regulatory authorities may not accept data generated at our clinical trial sites;
- if we submit a BLA or NDA to the FDA, and it is reviewed by an advisory committee, the FDA may have difficulties scheduling an advisory committee meeting in a timely manner or the advisory committee may recommend against approval of our application or may recommend that the FDA require, as a condition of approval, additional pre-clinical studies or clinical trials, limitations on approved labeling, or distribution and use restrictions;
- the applicable regulatory authorities may require development of a risk evaluation and mitigation strategy (a "REMS") as a condition of approval;
- the applicable regulatory authorities may identify deficiencies in the manufacturing processes or facilities of our third-party manufacturers;
- the applicable regulatory authorities may change their approval policies or adopt new regulations;

- through our clinical trials, we may discover factors that limit the commercial viability of our current product candidates or make the commercialization of any of our current product candidates unfeasible; and
- if approved, acceptance of our current product candidates by patients, the medical community, and third-party payors; our ability to compete with other therapies to treat OI, AATD, AECOPD, HH or ovarian cancer; continued acceptable safety profiles following approval of our current product candidates; and our ability to qualify for, maintain, enforce, and defend our intellectual property rights and claims.

If we do not successfully manage one or more of these factors in a timely manner or at all, we could experience significant delays or may not be able to successfully commercialize our current product candidates.

We cannot be certain that our current product candidates will be successful in clinical trials or receive regulatory approval. Further, our current product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our current product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to manufacture and market our current product candidates, our revenues will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such product candidates, if approved.

We plan to seek regulatory approval to commercialize, or co-commercialize, our current rare disease product candidates both in the United States and the European Union (“EU”), and potentially in additional foreign countries. While the scope of regulatory approval is similar in many countries, to obtain separate regulatory approval in multiple countries requires us to comply with the numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution, and we cannot predict success in these jurisdictions.

Our business is subject to economic, political, regulatory and other risks associated with international operations.

Our business is subject to risks associated with conducting business internationally. We source research and development, manufacturing, consulting, and other services from companies based throughout the United States, the EU, and Switzerland, and we conduct our clinical trials in the United States, Canada, certain European countries, and other countries. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular non-U.K. economies and markets;
- differing regulatory requirements for drug approvals in non-U.K. countries;
- differing jurisdictions could present different issues for securing, maintaining, or obtaining freedom to operate for our intellectual property in such jurisdictions;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with non-U.K. laws and regulations;
- changes in non-U.K. regulations and customs, tariffs, and trade barriers;
- changes in non-U.K. currency exchange rates of the pound sterling and currency controls;
- changes in a specific country’s or region’s political or economic environment, including the implications of the United Kingdom’s withdrawal from the EU;

- trade protection measures, import or export licensing requirements or other restrictive actions by U.K. or non-U.K. governments;
- differing reimbursement regimes and price controls in certain non-U.K. markets;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration, and labor laws for employees living or traveling outside of the United Kingdom;
- workforce uncertainty in countries where labor unrest is more common than in the United Kingdom;
- difficulties associated with staffing and managing international operations, including differing labor relations;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism, health epidemics and other widespread outbreaks of contagious disease, or natural disasters, including earthquakes, typhoons, hurricanes, floods, and fires.

Exchange rate fluctuations may materially affect our results of operations and financial condition.

Owing to the international scope of our operations, fluctuations in exchange rates, particularly between the pound sterling and the U.S. dollar, the euro, or the Swiss Franc, may adversely affect us. Further, potential future revenue may be derived from multiple jurisdictions and in multiple currencies. As a result, our business and the price of our ADSs and ordinary shares may be affected by fluctuations in foreign exchange rates not only between the pound sterling and the U.S. dollar, but also the currencies of other countries, which may have a significant impact on our results of operations and cash flows from period to period. Currently, we do not have any exchange rate hedging arrangements in place.

We face risks related to health epidemics and other widespread outbreaks of contagious disease, which could disrupt our operations and impact our operating results.

Significant outbreaks of contagious diseases, and other adverse public health developments, could have a material impact on our business operations and operating results. In December 2019, a strain of novel coronavirus, COVID-19, causing respiratory illness emerged in the city of Wuhan in the Hubei province of China. The Chinese government has taken certain emergency measures to combat the spread of the virus, including implementation of travel bans and closure of factories and businesses. Since that time, multiple other countries throughout the world have been affected by the spread of the virus. We continue to monitor the global spread of COVID-19 and have put in place and will continue to put in place measures as appropriate and necessary for our business. Any prolonged deviations from normal daily operations could negatively impact our business. While the full impact of this outbreak is unknown at this time, we are closely monitoring the rapid developments in countries that have become exposed to the virus and continually assessing the potential impact on our business. Any prolonged disruption of our clinical trials, suppliers or contract manufacturers could delay regulatory approvals or the commercialization of any current or future products.

The United Kingdom's withdrawal from the European Union could lead to increased market volatility, which could adversely impact the market price of our ADSs and make it more difficult for us to do business in Europe or have other adverse effects on our business.

The United Kingdom formally exited the European Union, commonly referred to as Brexit, on January 31, 2020. Under the terms of its departure, the United Kingdom will enter a transition period during which it will continue to follow all European Union rules and the trading relationship will remain

the same. The transition period is scheduled to end on December 31, 2020. The long term effects of Brexit will depend on the agreements and arrangements the United Kingdom negotiates with the European Union, including whether and to what extent it will retain access to the European Union markets following the transition period. There will be a period of considerable uncertainty particularly in relation to United Kingdom financial and banking markets as well as on the regulatory process in Europe as these negotiations continue to unfold. As a result of this uncertainty, financial markets could experience volatility which could adversely affect the market price of our ADSs. Depending on the final terms of any agreements and arrangements negotiated with the European Union, we may also face new regulatory costs and challenges that could have a material adverse effect on our operations, including the potential for a delay in our clinical progress and approvals in Europe. Depending on the terms of any agreements and arrangements negotiated with the European Union, the United Kingdom could lose the benefits of global trade agreements negotiated by the European Union on behalf of its members, which may result in increased trade barriers that could make our doing business worldwide more difficult. In addition, currency exchange rates in the pound sterling and the euro with respect to each other and the U.S. dollar have already been adversely affected by Brexit. Should this foreign exchange volatility continue it could cause volatility in our financial results.

Following the Licensing Agreement for Navi, and if we sell or out-license other of our non-rare disease product candidates or out-license any of our rare disease product candidates for any territories, we could be exposed to future liabilities.

Having recently completed the out-license of Navi, we plan to partner or sell or out-license our other non-rare disease product candidates, which include acumapimod for the treatment of AECOPD, leflutrozole for the treatment of HH in obese men and etigilimab for the treatment of solid tumors, recognizing the need for a larger sales infrastructure and greater resources to take these product candidates to market.

We may be exposed to future liabilities and/or obligations with respect to any such sale or out-licensing arrangements. We may be required to set aside provisions for warranty claims or contingent liabilities in respect of such sales or out-licensing arrangements. We may be required to pay damages (including, but not limited to, litigation costs) to a purchaser or licensee to the extent that any representations or warranties that we had given to that purchaser or licensee prove to be inaccurate or to the extent that we have breached any of our covenants or obligations contained in the disposal documentation. In certain circumstances, it is possible that any incorrect representations and warranties could give rise to a right by the purchaser or licensee to unwind the contract in addition to receiving damages. Furthermore, we may become involved in disputes or litigation in connection with such product candidates. Certain obligations and liabilities associated with our prior management of the development of any disposed product candidate can also continue to exist notwithstanding any sale, such as liabilities arising from the infringement of intellectual property rights of others.

As a result of the above, the total amount of costs and expenses that may be incurred with respect to liabilities associated with a sale or out-license may exceed our expectations, and we may experience other unanticipated adverse effects, all of which could adversely affect our business, financial condition, results of operations, and prospects.

Risks Related to Development, Clinical Testing, Manufacturing and Regulatory Approval

Setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab are in clinical development. Clinical drug development is a lengthy and expensive process with uncertain timelines and uncertain outcomes, and results of earlier studies and trials may not be predictive of future results. If clinical trials of our product candidates are prolonged or delayed, or if our product candidates fail to show the desired safety and efficacy in later stage clinical trials, we may be unable to obtain required regulatory approvals and be unable to commercialize, or co-commercialize, our product candidates on a timely basis, or at all.

To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate through extensive clinical trials that such product candidates are safe and effective in humans. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of pre-clinical studies and early-stage clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through pre-clinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Our future clinical trial results may not be successful.

We may experience delays in our ongoing clinical trials and we do not know whether planned clinical trials will begin on time, need to be redesigned, enroll patients on time or be completed on schedule, if at all. Our clinical trials can be delayed, suspended, or terminated for a variety of reasons, including the following:

- delays in or failure to obtain regulatory or ethics committee approval to commence a trial, for example, if we are unable to submit our proposed protocol to the FDA for a pediatric clinical trial for setrusumab;
- delays in or failure to reach agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- failure of our CROs to execute our trials in accordance with the clinical trial protocol; good laboratory, clinical, and manufacturing practices (“GxP”); or other regulatory or contractual obligations;
- delays in or failure to obtain institutional review board (“IRB”) approval, centrally or at each site;
- delays in or failure to recruit suitable patients to participate in a trial;
- failure to have patients complete a trial or return for post-treatment follow-up;
- for our rare disease product candidates, failure to enroll a sufficient number of patients with the rare disease and clinical trial design challenges such as, but not limited to, the off-label use of drugs to treat rare disease or where the most common treatment method has not been clinically tested or has been approved on the basis of a different endpoint and not directly tied to a clinical outcome study, for example, augmentation therapy for AATD;
- clinical sites deviating from trial protocol or dropping out of a trial or committing gross misconduct or fraud;
- adding new clinical trial sites;
- unexpected technical issues during manufacture, storage, or transport of our product candidates and the corresponding drug product;
- inability to manufacture sufficient quantities of our product candidates for use in clinical trials;

- third-party actions claiming infringement by our product candidates in clinical trials inside or outside of the United States and obtaining injunctions interfering with our progress;
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, hurricanes, floods, and fires;
- safety or tolerability concerns causing us or our collaborators, as applicable, to suspend or terminate a trial if we or our collaborators find that the participants are being exposed to unacceptable health risks;
- changes in regulatory requirements, policies, and guidelines;
- lower than anticipated retention rates of patients and healthy volunteers in clinical trials;
- unexpected technical issues with the equipment used to conduct clinical trials or analyze the results;
- our third-party research contractors failing to comply with regulatory requirements or to meet their contractual obligations to us in a timely manner, or at all;
- delays in establishing the appropriate dosage levels or frequency of dosing or treatment in clinical trials;
- difficulty in identifying the populations that we are trying to treat in a particular trial, which may delay enrollment and reduce the power of a clinical trial to detect statistically significant results;
- the quality or stability of our product candidates falling below acceptable standards for either safety or efficacy; and
- discoveries that may reduce the commercial viability of our product candidates.

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs, centrally or at the institutions in which such trials are being conducted, by the data monitoring committee or data safety monitoring board for such trial or by the FDA, the EMA, or other regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols; inspection of the clinical trial operations or trial site by the FDA, the EMA, or other regulatory authorities resulting in the imposition of a clinical hold; unforeseen safety issues or adverse side effects; failure to demonstrate a benefit from using a drug; failure of our clinical trials to demonstrate adequate efficacy and safety; changes in governmental regulations or administrative actions; or lack of adequate or timely funding to continue the clinical trial.

A number of academic institutions are currently conducting and sponsoring clinical trials relating to our product candidate, alvelestat, including a clinical trial in patients with BOS. We do not control the design or administration of investigator-sponsored trials, and such investigator-sponsored trials could identify significant concerns with respect to alvelestat that could impact our findings from our own clinical trials, and adversely affect our ability to obtain marketing approval from the FDA or other applicable authorities. To the extent the results of these or other investigator-sponsored trials are inconsistent with, or different from, the results of our company-sponsored trials or raise concerns regarding alvelestat, the FDA or a foreign regulatory authority may question the results of a company-sponsored trial, or subject such results to greater scrutiny than it otherwise would. In these circumstances, the FDA or such foreign regulatory authorities may require us to conduct additional clinical studies or submit additional clinical data, which could delay clinical development or marketing approval of alvelestat.

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA, the EMA, or another regulatory authority. The FDA, the EMA, or such other regulatory authority may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or

otherwise affected interpretation of the study. The FDA, the EMA, or such other regulatory authority may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA, the EMA, or the other regulatory authority, as the case may be, and may ultimately lead to the denial of marketing approval of our product candidates.

If we experience delays in the completion of any clinical trial of our product candidates or any clinical trial of our product candidates is terminated, the commercial prospects of our product candidates may be harmed, and our ability to generate product revenues from our product candidates, if any, will be delayed. Moreover, any delays in completing our clinical trials will increase our costs, slow down the development and approval process of our product candidates, and jeopardize our ability to commence product sales and generate revenue, if any. Significant clinical trial delays could also allow our competitors to bring product candidates to market before we do or shorten any periods during which we have the exclusive right to commercialize our product candidates and could impair our ability to commercialize our product candidates. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Clinical trials must be conducted in accordance with the laws and regulations of the FDA, EU rules and regulations and other applicable regulatory authorities' legal requirements, regulations or guidelines, and are subject to oversight by these governmental agencies and IRBs, centrally or at the institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of our product candidates produced in compliance with the requirements of current good manufacturing practice ("cGMP") and other regulations. Furthermore, we rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and while we have agreements governing the CROs' committed activities, we have limited influence over the CROs' actual performance. We depend on our collaborators and on medical institutions and CROs to conduct our clinical trials in compliance with good clinical practice ("GCP") requirements. To the extent our collaborators or the CROs fail to enroll participants for our clinical trials, fail to conduct the study to GCP standards, or are delayed for a significant time in the execution of trials, including achieving full enrollment, we may be affected by increased costs, program delays, or both. In addition, clinical trials that are conducted in countries outside the EU and the United States may subject us to further delays and expenses as a result of increased shipment costs, additional regulatory requirements, and the engagement of non-EU and non-U.S. CROs, as well as expose us to risks associated with clinical investigators who are unknown to the FDA or the EMA, and different standards of diagnosis, screening, and medical care.

Prior to our acquisition of setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab, we were not involved in the development of these product candidates and, as a result, we are dependent on Novartis, AstraZeneca and OncoMed having accurately reported the results and correctly collected and interpreted the data from all clinical trials conducted prior to our acquisition.

We were not involved in the development of our current product candidates prior to our acquisition of such product candidates from Novartis, AstraZeneca and OncoMed, respectively. For all of our current product candidates, we have had no involvement with or control over their manufacturing or pre-clinical and clinical development prior to our acquisition of them. We are dependent on Novartis, AstraZeneca and OncoMed having conducted their research and development in accordance with the applicable protocols and legal, regulatory, and scientific standards; having accurately reported the results of all clinical trials conducted prior to our acquisition; and having correctly collected and interpreted the data from these trials. To the extent Novartis, AstraZeneca or OncoMed has not done this, the clinical development, regulatory approval, or commercialization of our product candidates may be adversely affected.

Interim "top-line" and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim "top-line" or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or "top-line" data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

Our product candidates may have serious adverse, undesirable, or unacceptable side effects which may delay or prevent marketing approval or lead to the withdrawal of approval after it has been granted. If such side effects are identified during the development of these product candidates or following approval, if any, we may need to abandon our development of these product candidates, the commercial profile of any approved label may be limited, or we may be subject to other significant negative consequences following marketing approval, if any.

Undesirable side effects that may be caused by setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab could cause us or regulatory authorities to interrupt, delay or halt clinical trials, and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, the EMA, or other comparable foreign authorities. Each of our product candidates has completed one or more clinical trials. In the trials conducted prior to our ownership and following our ownership, the most common adverse events observed have been the following:

- for setrusumab, headache, influenza, arthralgia, and fatigue;
- for alvelestat, headache, nasopharyngitis, and elevated levels of the liver enzymes aspartate aminotransferase and alanine aminotransferase;
- for acumapimod, a mild acne-like rash, tachycardia, dizziness, and headache;
- for leflutrozole, headache, increased hematocrit, and small increases in blood pressure; and
- for etigilimab, rash, fatigue, nausea, pruritus, cough and autoimmune hepatitis.

Clinical development for all of these product candidates is ongoing. Results of our ongoing and future clinical trials, or results from clinical trials for other similar product candidates, could reveal a high and unacceptable severity and prevalence of adverse side effects. In such an event, our trials could be suspended or terminated and the FDA, EMA, or other comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications.

For example, the FDA approved the first sclerostin inhibitor for treatment of osteoporosis, Amgen Inc. ("Amgen") and UCB S.A.'s ("UCB") anti-sclerostin antibody, romosozumab (Evenity), in April 2019 following an 18-1 favorable advisory committee vote. However, Evenity received a Black Box warning that there may be an increase in risk of myocardial infarction ("MI"), stroke or cardiovascular death and it should not be initiated in patients who have had an MI or stroke in the last year. This was over a year after the FDA rejected our request for a Type C meeting to discuss the initiation of a pediatric Phase 3 study for setrusumab for the treatment of patients with severe OI. Based on these events and with our setrusumab Phase 2b efficacy and safety data in adult OI patients, we re-engaged with the FDA at the end of 2019 to discuss the expansion of the pivotal trial of setrusumab for the treatment of patients with severe OI to include sites in the United States. In February 2020, we announced the successful completion of a Type B End-of-phase 2 meeting with the FDA to discuss the expansion of the pediatric Phase 3 study for setrusumab for the treatment of children and adolescents with OI in the United

States. See ‘‘Prospectus Summary—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA.’’ In June 2019, the EMA’s CHMP adopted a negative opinion recommending the refusal of a marketing authorization for Evenity. However, Amgen and UCB announced in October 2019 that following a re-examination procedure the CHMP has adopted a positive opinion recommending marketing authorization for Evenity. In December 2019, the European Commission approved the MAA for Evenity.

Drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete a trial or result in potential product liability claims. Additionally, if any of our product candidates receives marketing approval and we or others later identify undesirable or unacceptable side effects caused by these product candidates, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of any such product and require us to take it off the market;
- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication, or field alerts to physicians and pharmacies;
- regulatory authorities may require a medication guide outlining the risks of such side effects for distribution to patients, or that we implement a REMS plan to ensure that the benefits of the product outweigh its risks;
- we may be required to change the way a product is administered, conduct additional clinical trials, or change the labeling of a product;
- we may be subject to limitations on how we may promote the product;
- sales of the product may decrease significantly;
- third-party private or government payors may not offer, or may offer inadequate, reimbursement coverage for, our product candidates, or reimbursement payments may be delayed or impossible to recover;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us or any collaborators from achieving or maintaining market acceptance of our product candidates or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenue from the sale of our product candidates.

Manufacturing tests of setrusumab have shown that it may cause an opalescence appearance to the liquid antibody formulation.

Our product candidate for treating OI, setrusumab, is of the IgG2 type subclass monoclonal antibody. The IgG2 subclass is known for having a tendency to reversibly self-associate and this can cause an opalescence appearance to the liquid antibody formulation that can be mediated by protein concentration, pH and temperature. The presence of an opalescence solution does not have an impact on product potency and effectiveness and does not generally correlate with the formation of aggregates or particles. Whilst we have recently conducted several large scale manufacturing runs of drug substance and drug product at third-party CMO’s without observing any opalescence and formulation studies are being conducted to in order to minimize any risk of significant opalescence or of aggregate formation, there can be no assurances that this opalescence will not occur in future manufacturing runs.

We depend on enrollment of patients in our clinical trials for our product candidates. If we are unable to enroll patients in our clinical trials, or enrollment is slower than anticipated, in particular for our product candidates with rare disease indications, our research and development efforts could be adversely affected.

Successful and timely completion of clinical trials for our product candidates will require that we enroll a sufficient number of patient candidates. Trials may be subject to delays as a result of the limited number of patients with the diseases that these product candidates target, patient enrollment taking longer than anticipated, or patient withdrawal. Due to the small number of patients for any rare disease, it may be difficult for us to enroll a sufficient number of patients in our clinical trials for our product candidates with indications in rare diseases or enrollment for these product candidates may take significantly longer than we anticipate. In addition, we will compete with other companies in enrolling the same limited population of patients, which may further challenge our ability to timely enroll patients in our clinical trials. It is estimated that OI, the target indication for setrusumab, affects a minimum of 20,000 people in the United States and approximately 32,000 people in Germany, Spain, France, Italy, and the United Kingdom, collectively. There are an estimated 50,000 and 60,000 persons in North America and Europe, respectively, with the genotypes that we intend to enroll in our clinical trials for AATD, the target indication for alvelestat. Patient enrollment depends on many factors, including the size and nature of the patient population, eligibility criteria for the trial, the proximity of patients to clinical sites, the design of the clinical protocol, the availability of competing clinical trials, the availability of new drugs or biologics approved for the indication the clinical trial is investigating, and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies. These factors may make it difficult for us to enroll enough patients to complete our clinical trials in a timely and cost-effective manner. Delays in the completion of any clinical trial of our product candidates will increase our costs, slow down our development and approval of our product candidates, and delay or potentially jeopardize our ability to commence product sales and generate revenue. In addition, some of the factors that cause or lead to a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or at the commercial stage, and our product liability insurance may not cover all damages from such claims.

We are exposed to potential product liability and professional indemnity risks that are inherent in the development, manufacturing, marketing, and use of pharmaceutical product candidates. Currently, we have no product candidates that have been approved for commercial sale; however, the current and future use of our product candidates by us and any collaborators, in clinical trials, and the sale of these product candidates, if approved, in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies, our collaborators, or others selling these product candidates. Any claims against us, regardless of their merit, could be difficult and costly to defend and could adversely affect the market for our product candidates or any prospects for commercialization of our product candidates. In addition, regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend related litigation;
- diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- regulatory investigation, product recalls or withdrawals, or labeling, marketing or promotional restrictions;

- loss of revenue; and
- the inability to commercialize, co-commercialize, or promote our product candidates.

Although the clinical trial process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If our product candidates were to cause adverse side effects during clinical trials or after approval, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates.

Although we maintain product liability insurance for our product candidates, it is possible that our liabilities could exceed our insurance coverage. We intend to expand our coverage to include the sale of commercial product candidates if we obtain marketing approval for any of our product candidates. However, we may not be able to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

The regulatory approval processes of the FDA, the EMA, and comparable foreign authorities are lengthy, time consuming, and inherently unpredictable as they rely on third party decisions outside of our control, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The time required to obtain approval by the FDA, the EMA, and comparable foreign authorities is unpredictable and relies on third party decisions outside of our control, but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any of our product candidates and it is possible that none of our product candidates will obtain regulatory approval.

Our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA, the EMA, or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA, the EMA, or comparable foreign regulatory authorities that a product is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA, the EMA, or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product's clinical and other benefits outweigh its safety risks;
- the FDA, the EMA, or comparable foreign regulatory authorities may disagree with our interpretation of data from pre-clinical studies or clinical trials or may find the data to be unacceptable;
- the data collected from clinical trials may not be sufficient to support the submission of a BLA or NDA in the United States, an MAA or CMA in the EU, or other comparable submission to obtain regulatory approval in other countries;
- the FDA, the EMA, or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and

- the approval policies or regulations of the FDA, the EMA, or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

This lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market any product candidates. The FDA, the EMA, and other regulatory authorities have substantial discretion in the approval process, and determining when or whether regulatory approval will be obtained for a product. Even if we believe the data collected from clinical trials are promising, such data may not be sufficient to support approval by the FDA, the EMA, or any other regulatory authority.

In addition, even if we were to obtain approval for any jurisdiction, regulatory authorities may approve our product candidates for fewer or more limited indications than we request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product with a label that does not include the labeling claims necessary or desirable for the successful commercialization of such product. Any of the foregoing scenarios could materially harm our commercial prospects and business.

Even if any of our product candidates obtains regulatory approval, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, any of our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with such product.

If the FDA, the EMA, or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, and recordkeeping for such product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, facility registration, and drug listing, as well as continued compliance with cGMP requirements for manufacturing, good distribution practice, requirements for product distribution, and GCP requirements for any clinical trials that we conduct post-approval, all of which may result in significant expense and limit our ability to commercialize, or co-commercialize, a product. We and our contract manufacturers will also be subject to user fees and periodic inspection by the FDA, the EMA, and other regulatory authorities to monitor compliance with these requirements and the terms of any product approval we may obtain. In addition, any regulatory approvals that we receive for a product may also be subject to limitations on the approved indicated uses for which such product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of such product.

If there are changes in the application of legislation or regulatory policies, or if problems are discovered with a product or the manufacture of a product, or if we or one of our distributors, licensees, or co-marketers fails to comply with regulatory requirements, the regulatory authorities could take various actions. These include imposing fines on us, imposing restrictions on our product or its manufacture, and requiring us to recall or remove a product from the market. The regulatory authorities could also suspend or withdraw our marketing authorizations, or require us to conduct additional clinical trials, change our product labeling, or submit additional MAAs. If any of these events occurs, our ability to sell our product may be impaired, and we may incur substantial additional expense to comply with regulatory requirements.

The policies of the FDA, the EMA, and other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature, or extent of government regulation that

may arise from future legislation or administrative or executive action, either in the United States, the United Kingdom, Europe, or other jurisdictions. For example, the current U.S. presidential administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. Notably, in January 2017, an Executive Order was issued directing all executive agencies, including the FDA, that, for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This Executive Order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the Executive Order requires agencies to identify regulations to offset any incremental cost of a new regulation. In interim guidance issued by the Office of Information and Regulatory Affairs in February 2017, the administration indicated that the "two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents, and in September 2017, the FDA published notices in the Federal Register soliciting broad public comment to identify regulations that could be modified in compliance with these Executive Orders. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose restrictions on the FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted. In addition, if we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Even if we obtain marketing approval of any of our product candidates in a major pharmaceutical market such as the United States or the EU, we may not be able to obtain approval or commercialize that product in other markets, which would limit our ability to realize our full market potential.

In order to market any product candidates in a country or territory, we must establish and comply with numerous and varying regulatory requirements of such country or territory regarding safety and efficacy. Clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking regulatory approvals in multiple markets may require additional pre-clinical studies or clinical trials, which would be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our product candidates in those countries. Satisfying these and other regulatory requirements is costly, time consuming, uncertain, and may be subject to unanticipated delays. In addition, our failure to obtain regulatory approval in any country may delay or have negative effects on the process for regulatory approval in other countries. We currently do not have any product candidates approved for sale in the United States, the EU, or any other markets, and our management team does not have experience in obtaining regulatory approval in markets outside of the United States and the EU. If we seek regulatory approval in other markets and fail to obtain marketing approval in those markets or, if our product candidates are approved in such markets but we fail to maintain such approvals, our ability to realize the full market potential of our product candidates will be compromised.

Our employees and independent contractors, including principal investigators, CROs, CMOs, consultants, vendors, and any other third parties we may engage in connection with the development and commercialization of our product candidates may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could adversely affect our business.

Misconduct by our employees and independent contractors, including principal investigators, CROs, CMOs, consultants, vendors, and any other third parties we may engage in connection with the development and commercialization of our product candidates, could include intentional, reckless, or negligent conduct or unauthorized activities that violate: (i) the laws and regulations of the FDA, the EMA and other similar regulatory authorities, including those laws that require the reporting of true, complete and accurate information to such authorities; (ii) manufacturing standards; (iii) data privacy, security, fraud and abuse, and other healthcare laws and regulations; or (iv) laws that require the reporting of true, complete, and accurate financial information and data. Specifically, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs, and other business arrangements. Activities subject to these laws could also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creation of fraudulent data in pre-clinical studies or clinical trials, or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations. We are also subject to the data privacy regime in the EU, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the EU and includes the General Data Protection Regulation (the “GDPR”) and any national laws implementing or supplementing the GDPR. If we do not comply with our obligations under the EU privacy regime, we could be exposed to significant fines and may be the subject of litigation and/or adverse publicity, which could have a material adverse effect on our reputation and business.

Risks Related to Healthcare Laws and Other Legal Compliance Matters

Enacted and future healthcare legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.

In the United States, EU and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes to the healthcare system that could affect our future results of operations. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (as so amended, the “ACA”) was enacted, which substantially changed the way healthcare is financed by both governmental

and private insurers. Among the provisions of the ACA, those of greatest importance to the pharmaceutical and biotechnology industries include the following:

- an annual, non-deductible fee payable by any entity that manufactures or imports certain branded prescription drugs and biologic agents (other than those designated as orphan drugs), which is apportioned among these entities according to their market share in certain government healthcare programs;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- new requirements to report certain financial arrangements with physicians and teaching hospitals, including reporting "transfers of value" made or distributed to prescribers and other healthcare providers and reporting investment interests held by physicians and their immediate family members;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price ("AMP") of branded and generic drugs, respectively, and capped the total rebate amount for innovator drugs at 100% of the AMP;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs and biologics, including our product candidates, that are inhaled, infused, instilled, implanted, or injected;
- extension of a manufacturer's Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board, which, once empaneled, would have the authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law unless overruled by a supermajority vote of Congress. The Bipartisan Budget Act of 2018 repealed the creation of the Independent Payment Advisory Board before it could take effect;
- establishment of a Center for Medicare Innovation at the Centers for Medicare & Medicaid Services ("CMS"), to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending;
- expansion of the entities eligible for discounts under the Public Health Service program; and
- a licensure framework for follow on biologic product candidates.

Since its enactment, there have been judicial and congressional challenges to certain aspects of the ACA, as well as recent efforts by the Trump administration to repeal or replace certain aspects of the ACA. Since January 2017, President Trump has signed two Executive Orders designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. The Trump administration has also announced that it will discontinue the payment of cost-sharing reduction ("C-SR") payments to insurance companies until Congress approves the appropriation of funds for the C-SR payments. The loss of the C-SR payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. A bipartisan bill to appropriate funds for C-SR payments has been introduced in the Senate, but the future of that bill is uncertain. In addition, CMS has recently proposed regulations that would give

states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces. Further, each chamber of Congress has put forth multiple bills this year designed to repeal or repeal and replace portions of the ACA. Although none of these measures have been enacted by Congress to date, Congress may consider other legislation to repeal and replace elements of the ACA. Congress will likely consider other legislation to replace elements of the ACA. We continue to evaluate the effect that the ACA and its possible repeal and replacement has on our business. It is uncertain the extent to which any such changes may impact our business or financial condition.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2025 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws or any other similar laws introduced in the future may result in additional reductions in Medicare and other health care funding, which could negatively affect our future customers and accordingly, our financial operations.

Additionally, there has been increasing legislative and enforcement interest in the United States with respect to non-rare drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. We expect that additional U.S. federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare product candidates and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Individual states in the United States have also become increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Legally-mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition, and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical product candidates and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our product candidates or put pressure on our product pricing.

In the EU, similar political, economic and regulatory developments may affect our ability to profitably commercialize, or co-commercialize, our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the EU or

member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the EU, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than EU, law and policy. National governments and health service providers have different priorities and approaches to the delivery of health care and the pricing and reimbursement of product candidates in that context. In general, however, the healthcare budgetary constraints in most EU member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing EU and national regulatory burdens on those wishing to develop and market product candidates, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize, or co-commercialize, our product candidates, if approved.

In markets outside of the United States and EU, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific product candidates and therapies.

We cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative action in the United States, the EU, or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

Our business operations and current and future relationships with investigators, healthcare professionals, consultants, third-party payors, patient organizations, and customers will be subject to applicable healthcare regulatory laws, which could expose us to penalties.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations, and customers, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell, and distribute our product candidates, if approved. Such laws include:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving, or providing any remuneration (including any kickback, bribe, or certain rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order, or recommendation of, any good, facility, item, or service, for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. The U.S. federal Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers, and formulary managers on the other hand;
- the U.S. federal false claims and civil monetary penalties laws, including the civil False Claims Act (“FCA”) which, among other things, impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the U.S. federal

government. In addition, the government may assert that a claim including items and services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the FCA. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes "any request or demand" for money or property presented to the federal government. In addition, manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims;

- the U.S. federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services; similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH") and its respective implementing regulations, which impose, among other things, specified requirements relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization by covered entities subject to the rule, such as health plans, healthcare clearinghouses and healthcare providers as well as its business associates that perform certain services involving the use or disclosure of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions;
- the U.S. federal Food, Drug and Cosmetic Act ("FDCA"), which prohibits, among other things, the adulteration or misbranding of drugs, biologics, and medical devices;
- the U.S. Public Health Service Act ("PHSA"), which prohibits, among other things, the introduction into interstate commerce of a biological product unless a biologics license is in effect for that product;
- the U.S. federal legislation commonly referred to as the "Physician Payments Sunshine Act," enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics, and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to the government information related to certain payments and other transfers of value to physicians and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members;
- analogous U.S. state laws and regulations, including: state anti-kickback and false claims laws, which may apply to our business practices, including but not limited to, research, distribution, sales, and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; and state laws governing the privacy and security of health information in certain circumstances, many of

which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and

- similar healthcare laws and regulations in the EU and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of our business activities could be subject to challenge under one or more of such laws. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Ensuring that our current and future internal operations and business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations.

If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in government funded healthcare programs (including Medicare, Medicaid and other federal healthcare programs in the United States), individual imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and/or oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. If any of the physicians or other providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and imprisonment, which could affect our ability to operate our business. Further, defending against any such actions can be costly, time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

We are subject to governmental regulation and other legal obligations related to privacy, data protection and data security. Our actual or perceived failure to comply with such obligations could harm our business.

We are subject to diverse laws and regulations relating to data privacy and security in the EU, including the GDPR. New global privacy rules are being enacted and existing ones are being updated and strengthened. We are likely to be required to expend capital and other resources to ensure ongoing compliance with these laws and regulations.

The GDPR applies extraterritorially and implements stringent operational requirements for controllers and processors of personal data. For example, the GDPR: (i) requires detailed disclosures to data subjects; (ii) requires disclosure of the legal basis on which personal data is processed; (iii) makes it harder to obtain valid consent for processing; (iv) requires the appointment of a data protection officer where sensitive personal data (i.e. health data) is processed on a large scale; (v) provides more robust rights for data subjects; (vi) introduces mandatory data breach notification through the EU; (vii) imposes additional obligations when contracting with service providers; and (viii) requires an appropriate privacy governance framework to be implemented including policies, procedures, training and data audit. The GDPR permits member state derogations for certain issues and, accordingly, we are also subject to EU national laws relating to the processing of certain data such as genetic data, biometric data and data concerning health. Complying with these numerous,

complex and often changing regulations is expensive and difficult. Failure by us, or our partners or service providers, to comply with the GDPR could result in regulatory investigations, enforcement notices and/or fines of up to the higher of 20 million euros or up to 4% of our total worldwide annual turnover. In addition to the foregoing, any breach of privacy laws or data security laws, particularly those resulting in any security incident or breach involving the misappropriation, loss or other unauthorized use or disclosure of sensitive or confidential patient or consumer information, could have a material adverse effect on our business, reputation and financial condition.

As a data controller, we are accountable for any third-party data service providers we engage to process personal data on our behalf. We attempt to address the associated risks by performing security assessments, detailed due diligence and regularly performing privacy and security reviews of our vendors and requiring all such third-party providers with data access to sign agreements, including business associate agreements, and where required under EU law, obligating them to only process data according to our instructions and to take sufficient security measures to protect such data. There is no assurance that these contractual measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information. Any violation of data or security laws by our third-party processors could have a material adverse effect on our business and result in the fines and penalties outlined above.

We are also subject to evolving European privacy laws on electronic marketing and cookies. The EU is in the process of replacing the e-Privacy Directive (2002/58/EC) (the “e-Privacy Directive”) with a new set of rules taking the form of a regulation, which will be directly applicable to the laws of each European member state, without need for further implementation. The draft e-Privacy Regulation (the “e-Privacy Regulation”) imposes strict opt-in marketing rules with limited exceptions for business-to-business communications, alters rules on third-party cookies, web beacons and similar technology and significantly increases fining powers to the same levels as GDPR (i.e. the greater of 20 million euros or 4% of total global annual revenue). While the e-Privacy Regulation was originally intended to be adopted on May 25, 2018 (alongside the GDPR), it is still going through the European legislative process and commentators now expect it to be adopted during the second half of 2020 or during 2021 following a transition period.

Due to our international operations, we are subject to anti-corruption laws, as well as export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses.

Our operations are subject to anti-corruption laws, including the U.K. Bribery Act 2010 (the “Bribery Act”); the U.S. Foreign Corrupt Practices Act (the “FCPA”); and other anti-corruption laws that apply in countries where we do business and may do business in the future. The Bribery Act, FCPA, and these other laws generally prohibit us, our officers and our employees and intermediaries from bribing, being bribed by, or providing prohibited payments or anything else of value to government officials or other persons to obtain or retain business or gain some other business advantage. We may in the future operate in jurisdictions that pose a high risk of potential Bribery Act or FCPA violations, and we may participate in collaborations and relationships with third parties whose actions could potentially subject us to liability under the Bribery Act, FCPA, or local anti-corruption laws. In addition, we cannot predict the nature, scope, or effect of future regulatory requirements to which any of our international operations might be subject or the manner in which existing laws might be administered or interpreted.

We are also subject to other laws and regulations governing any international operations, including regulations administered by the governments of the United Kingdom and the United States, and authorities in the EU, including applicable export control regulations, economic sanctions on countries and persons, customs requirements and currency exchange regulations (collectively, the “Trade Control Laws”).

There is no assurance that we will be completely effective in ensuring our compliance with all applicable anti-corruption laws, including the Bribery Act, the FCPA, or other legal requirements, including Trade Control Laws. If we are not in compliance with the Bribery Act, the FCPA, and other anti-corruption laws or Trade Control Laws, we may be subject to criminal and civil penalties, disgorgement, and other sanctions and remedial measures and legal expenses. Any investigation of any potential violations of the Bribery Act, the FCPA, other anti-corruption laws, or Trade Control Laws by U.K., U.S., or other authorities, even if it is ultimately determined that we did not violate such laws, could be costly and time-consuming, require significant personnel resources, and harm our reputation.

We will seek to build and continuously improve our systems of internal controls and to remedy any weaknesses identified. There can be no assurance, however, that the policies and procedures will be followed at all times or effectively detect and prevent violations of the applicable laws by one or more of our employees, consultants, agents, or collaborators and, as a result, we could be subject to fines, penalties, or prosecution.

Risks Related to Commercialization

We operate in a highly competitive and rapidly changing industry, which may result in others acquiring, developing, or commercializing competing product candidates before or more successfully than we do.

The biopharmaceutical and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. Our success is highly dependent on our ability to acquire, develop, and obtain marketing approval for new product candidates on a cost-effective basis and to market them successfully. If setrusumab, alvelestat, acumapimod, leflutrozole or etigilimab is approved, we will face intense competition from a variety of businesses, including large, fully integrated pharmaceutical companies, non-rare pharmaceutical companies, and biopharmaceutical companies in the United States, Europe, and other jurisdictions. These organizations may have significantly greater resources than we have and conduct similar research; seek patent protection; and establish collaborative arrangements for research, development, manufacturing, and marketing of product candidates that may compete with our product candidates.

We expect to face competition for each of our current product candidates, including specifically:

- We consider setrusumab's current closest potential competitors in development for the treatment of OI to be Amgen denosumab (Prolia) an anti-resorptive agent, and Amgen and UCB's anti-sclerostin antibody, romosozumab (Evenity), which was approved in the United States in April 2019 for osteoporosis. In June 2019, the EMA's CHMP adopted a negative opinion recommending the refusal of a marketing authorization for Evenity. However, Amgen and UCB announced in October 2019 that following a re-examination procedure the CHMP has adopted a positive opinion recommending marketing authorization for Evenity. In December 2019, the European Commission approved the MAA for romosozumab (Evenity). In addition, Jiangsu Hengrui has commenced Phase 1 development of an anti-sclerostin antibody for osteoporosis, and Transcenta Holding has licensed the anti-sclerostin antibody blosozumab from Eli Lilly and Company ("Lilly") and plans to develop it for osteoporosis. Additionally, Bone Therapeutics S.A. ("Bone Therapeutics") is developing osteoblastic cell therapy product candidates. Baylor College of Medicine is also conducting a Phase 1 open label trial of fresolimumab, a TGF-B inhibitor, in adult OI patients.
- We consider alvelestat's current closest potential competitors for the treatment of severe AATD to be alpha1-proteinase inhibitors that are administered intravenously in AAT augmentation therapy. Currently, there are four inhibitors on the market in the United States and the EU: Prolastin-C from Grifols, S.A. ("Grifols"), Aralast from Shire plc, now a subsidiary

of Takeda Pharmaceutical Company Ltd (“Shire”), Zemaira from CSL Limited (“CSL”), and Glassia from Kamada Ltd. (“Kamada”). Kamada is also investigating an inhaled version of augmentation therapy, InhibRx, Inc. (“InhibRx”) is in Phase 1 development of INBRX-101, a recombinant human alpha-1 antitrypsin Fc fusion protein (rhAAT-Fc) for replacement therapy, and Apic Bio, Inc. (“Apic Bio”) is in the early stages of developing gene-therapy approaches for AATD. Vertex Pharmaceuticals Inc. (“Vertex”) has a small molecule corrector program for AATD with VX-814 and VX-864 in Phase 1 development. Santhera Pharmaceuticals (“Santhera”), has in-licensed an inhaled NE inhibitor and is planning a multiple ascending dose study, with the initial indication targeted being CF; and CHF-6333 is an inhaled human NE inhibitor in Phase 1 development by Chiesi Farmaceutici S.p.A. (“Chiesi”) for the treatment of non-cystic fibrosis bronchiectasis and CF.

- For acumapimod, although we are not aware of any approved therapies for the treatment of AECOPD, there are a wide range of established therapies available for COPD as well as a number of product candidates in development, with Verona Pharma plc (“Verona Pharma”), GlaxoSmithKline plc. (“GlaxoSmithKline”), and AstraZeneca each conducting Phase 2 trials on drugs for the treatment of COPD. In addition, Pulmatrix, Inc. (“Pulmatrix”) has PUR1800, a narrow-spectrum kinase inhibitor (NSKI) expected to begin a Phase 1b for AECOPD in 2020. We consider acumapimod’s current closest potential competitor in development for the treatment of AECOPD to be Verona Pharma’s RPL554, a PDE3 / PDE4 dual inhibitor that is currently being developed as a bronchodilator and anti-inflammatory agent for COPD and asthma patients.
- We consider leflutrozole’s current closest potential competitors for the treatment of HH to be testosterone replacement therapies (“TRT”). These include Androgel from AbbVie Inc. (“AbbVie”), and Lilly’s Axiron, both administered transdermally by applying a gel formulation, which are approved in the United States and Europe, Andriol from Merck & Co., Inc. (“Merck”), an oral testosterone therapy, which is approved in Europe but not in the United States and Jatenzo from Clarus Therapeutics, Inc. (“Clarus”) approved in the United States in March 2019. There are also other approved TRT product candidates that are administered via injection and other oral TRTs that are still in the development or registration stages, such as Tlando from Lipocine, Inc. (“Lipocine”). The FDA held advisory committee meetings in January 2018 for Tlando. On May 9, 2018, Lipocine announced that it had received a complete response letter from the FDA and on May 14, 2019, Lipocine announced the acceptance of the NDA for Tlando. Lipocine has also announced an injunction against Clarus for its product Jatenzo.
- We consider etigilimab’s competitors to be existing cancer treatments such as the commercially available immuno-oncology agents (e.g., Yervoy, Keytruda, and Opdivo), chemotherapeutic agents, and antibody based therapeutics such as Avastin and Erbitux. In addition, other potential competitors include several other anti-TIGIT agents (e.g., those currently being developed by Genentech (Roche), Merck, Bristol-Myers Squibb or BMS, and Arcus Biosciences) and investigational immuno-oncologic agents against other targets. There are established pharmaceutical and biotechnology companies that are known to be involved in oncology research.

We also anticipate that new companies will enter these markets in the future. If we successfully develop and commercialize any of setrusumab, alvelestat, acumapimod, leflutrozole or etigilimab, they will compete with existing therapies and new therapies that may become available in the future. The highly competitive nature of and rapid technological changes in the biopharmaceutical and pharmaceutical industries could render our product candidates obsolete, less competitive, or uneconomical. Our competitors may, among other things:

- have significantly greater name recognition, financial, manufacturing, marketing, drug development, technical, and human resources than we do, and future mergers and

acquisitions in the biopharmaceutical and pharmaceutical industries may result in even more resources being concentrated in our competitors;

- develop and commercialize product candidates that are safer, more effective, less expensive, more convenient, or easier to administer, or have fewer or less severe effects, or in certain cases could be curative for the condition;
- obtain quicker regulatory approval;
- establish superior proprietary positions covering our product candidates and technologies;
- implement more effective approaches to sales and marketing; or
- form more advantageous strategic alliances.

Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel; establishing clinical trial sites and patient registration; and in acquiring technologies complementary to, or necessary for, our programs. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize product candidates that are more effective, have fewer or less severe side effects, are more convenient or are less expensive than our product candidates. Our competitors may also obtain FDA, EMA, or other regulatory approval for their product candidates more rapidly than we may obtain approval for our own product candidates, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, existing products approved for other indications could be used off-label and may compete with our products. For example, the only treatments available to OI patients are drugs such as bisphosphonates, which are not approved for this indication but are commonly used off-label in children.

We have obtained orphan drug designation for setrusumab for the treatment of OI in the United States and EU, but we may be unable to obtain orphan drug designation for alvelestat or any future product candidates, and we may be unable to obtain or maintain the benefits associated with orphan drug designation, including the potential for orphan drug exclusivity, for setrusumab or any other product for which we obtain orphan drug designation.

Under the Orphan Drug Act of 1983 (the “Orphan Drug Act”), the FDA may designate a product as an orphan drug if it is intended to treat a rare disease or condition, defined as one occurring in a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the EU, the EMA’s Committee for Orphan Medicinal Products (“COMP”) recommends to the European Commission the granting of orphan designation to promote the development of medicinal products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the EU. Additionally, designation is granted for medicinal products intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating, or serious and chronic condition when, without incentives, it is unlikely that sales of the drug in the EU would be sufficient to justify the necessary investment in developing the drug or biological product or where there is no satisfactory method of diagnosis, prevention, or treatment, or, if such a method exists, where the medicine can demonstrate that it is of significant benefit to those affected by the condition.

In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax credits for qualified clinical testing, and user-fee waivers. In addition, if a product receives the first FDA approval of that drug for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over

the product with orphan exclusivity or where the manufacturer is unable to assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the rare disease or condition. Under the FDA's regulations, the FDA will deny orphan drug exclusivity to a designated drug upon approval if the FDA has already approved another drug with the same active ingredient for the same indication, unless the drug is demonstrated to be clinically superior to the previously approved drug. In the EU, orphan designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity following approval. This period can be extended by two years if studies in children are performed in accordance with a PIP. In addition, this period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the drug is sufficiently profitable not to justify maintenance of market exclusivity or where the manufacturer is unable to supply the treatment. In the EU, a marketing authorization for an orphan designated product will not be granted if a similar drug has been approved in the EU for the same therapeutic indication, unless the applicant can establish that its product is safer, more effective or otherwise clinically superior. A similar drug is a product containing a similar active substance or substances as those contained in an already authorized product. Similar active substance is defined as an identical active substance, or an active substance with the same principal molecular structural features (but not necessarily all of the same molecular features) and which acts via the same mechanism.

We have obtained orphan drug designation from the FDA and EMA for setrusumab for the treatment of OI, and we plan to seek orphan drug designation for alvelestat and future rare disease product candidates. Even with orphan drug designation, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing pharmaceutical product candidates, which could prevent us from marketing our product candidates if another company is able to obtain orphan drug exclusivity before we do. In addition, exclusive marketing rights in the United States may be unavailable if we seek approval for an indication broader than the orphan-designated indication or may be lost in the United States if the FDA later determines that the request for designation was materially defective or if we are unable to assure sufficient quantities of the drug to meet the needs of patients with the rare disease or condition following approval. Further, even if we obtain orphan drug exclusivity, that exclusivity may not effectively protect our product candidates from competition because different drugs with different active moieties can be approved for the same condition. In addition, the FDA and the EMA can subsequently approve product candidates with the same active moiety for the same condition if the FDA or the EMA concludes that the later drug is safer, more effective, or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process. In addition, while we intend to seek orphan drug designation for other existing and future product candidates, including alvelestat, we may never receive such designations.

There have been legal challenges to aspects of the FDA's regulations and policies concerning the exclusivity provisions of the Orphan Drug Act, and future challenges could lead to changes that affect the protections afforded to our product candidates in ways that are difficult to predict. In 2014, a U.S. district court invalidated the FDA's denial of orphan exclusivity to an orphan designated drug, which the FDA had based on its determination that the drug was not proven to be clinically superior to a previously approved "same drug." In response to the decision, the FDA released a policy statement stating that the court's decision is limited to the facts of that particular case and that the FDA will continue to deny orphan drug exclusivity to a designated drug upon approval if the drug is the "same" as a previously approved drug, unless the drug is demonstrated to be clinically superior to that previously approved drug. Since then, similar legal challenges have been initiated against the FDA for its denial of orphan drug exclusivity to other designated drugs, and in 2017, Congress amended the Orphan Drug Act to require a demonstration of clinical superiority upon approval as a condition of receiving orphan drug exclusivity when another "same drug" has already been approved for the same

indication. In the future, there is the potential for additional legal challenges to the FDA's orphan drug regulations and policies, and it is uncertain how ongoing and future challenges might affect our business.

We may seek and fail to obtain breakthrough therapy designation by the FDA for setrusumab or alvelestat, or any future product candidates or access to the PRIME scheme by the EMA for alvelestat or any future product candidates. Even if we obtain such designation or access, the designation or access may not lead to faster development or regulatory review or approval, and it does not increase the likelihood that our product candidates will receive marketing approval.

In 2012, the FDA established a breakthrough therapy designation which is intended to expedite the development and review of product candidates that treat serious or life-threatening diseases where preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically-significant endpoints, such as substantial treatment effects observed early in clinical development. The designation of a product as a breakthrough therapy provides potential benefits that include but are not limited to more frequent meetings with the FDA to discuss the development plan for the product and ensure collection of appropriate data needed to support approval; more frequent written correspondence from the FDA about such things as the design of the proposed clinical trials and use of biomarkers; intensive guidance on an efficient drug development program, beginning as early as Phase 1; organizational commitment involving senior managers; and eligibility for rolling review and priority review. Drugs and biologics designated as breakthrough therapies by the FDA are also eligible for accelerated approval. Similarly, the EMA has established the PRIME scheme to expedite the development and review of product candidates that show a potential to address to a significant extent an unmet medical need, based on early clinical data. In November 2017, setrusumab was admitted to the PRIME scheme of the EMA.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. We cannot be sure that our evaluation of our product candidates as qualifying for breakthrough therapy designation will meet the FDA's expectations. In any event, the receipt of a breakthrough therapy designation for a product may not result in a faster development process, review, or approval compared to product candidates considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Similarly, access to the PRIME scheme is at the discretion of the EMA, and we cannot be sure that alvelestat or any future product candidates will be granted access to the scheme; that participation in the scheme will result in expedited regulatory review or approval of our product candidates; or that access to the scheme, once granted, will not be revoked.

We intend to directly commercialize or co-commercialize our product candidates for rare diseases and to seek strategic relationships with third parties for the development and/or commercialization of our product candidates for non-rare diseases. If we are unable to develop our own sales, marketing, and distribution capabilities or enter into business arrangements, we may not be successful in commercializing our product candidates.

We have no marketing, sales, or distribution capabilities and we currently have no experience with marketing, selling or distributing pharmaceutical product candidates. We also have no strategic relationships in place for the commercialization of our product candidates. For setrusumab and alvelestat, if approved, and for any future product candidates for rare diseases, we intend either to establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize or co-commercialize these product candidates in major markets or

potentially to outsource aspects of these functions to third parties or partners. We may not be able to hire a sales force that is sufficient in size or has adequate expertise in OI, AATD, or other relevant rare diseases. Any failure or delay in the development of our internal sales, marketing, and distribution capabilities would adversely impact the commercialization of these product candidates.

We currently intend to enter into strategic relationships with pharmaceutical, biopharmaceutical or other partners for the continued development of our non-rare disease product candidates, acumapimod, etigilimab and leflutrozole, and we may take the same approach for other product candidates. These arrangements would also likely include the commercialization of a product. Alternatively, we may seek to sell or out-license one or more of our non-rare disease product candidates. See "—Risks Related to Our Business and Industry—Following the Licensing Agreement for Navi, and if we sell or out-license other of our non-rare disease product candidates or out-license any of our rare disease product candidates for any territories, we could be exposed to future liabilities."

As a result of the entering into any such planned partnerships or arrangements, our revenue from product sales may be lower than if we directly marketed or sold these product candidates on our own. In addition, any revenue we receive will depend upon the terms of such partnership or arrangement, which may not be as favorable to us as possible, and the efforts of the other party, which may not be adequate or successful and are likely to be beyond our control. We may not be successful in identifying a suitable partner or partners, and we may not be able to reach agreement with them at all. If we are unable to enter into these partnerships or arrangements on acceptable terms or at all, we may not be able to successfully commercialize these product candidates.

These commercialization approaches are expensive and time consuming, and some or all of the costs associated with such efforts may be incurred in advance of any approval of our product candidates. If we are not successful in commercializing our product candidates, either on our own or through strategic relationships with third parties, our future product revenue will suffer and we may incur significant losses.

The successful commercialization of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage, reimbursement levels, and pricing policies. Failure to obtain or maintain coverage and adequate reimbursement for our product candidates, if approved, could limit our ability to market those product candidates and decrease our ability to generate revenue.

The availability and adequacy of coverage and reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers, and other third-party payors are essential for most patients to be able to afford prescription medications such as our product candidates, assuming approval. Our ability to achieve acceptable levels of coverage and reimbursement for product candidates by governmental authorities, private health insurers, and other organizations will have an effect on our ability to successfully commercialize our product candidates. Assuming we obtain coverage for our product candidates by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. Third party payors may also elect to restrict coverage to a subset of patients that could potentially be treated with our products, if approved. We cannot be sure that coverage and reimbursement in the United States, the EU, or elsewhere will be available for our product candidates or any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical product candidates and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs or biologics when an equivalent generic drug, biosimilar, or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates,

pricing of existing drugs may limit the amount we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed product candidates at levels that are too low to enable us to realize an appropriate return on our investment in our product candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates, and may not be able to obtain a satisfactory financial return on our product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved product candidates. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

No uniform policy for coverage and reimbursement for product candidates exists among third-party payors in the United States. Therefore, coverage and reimbursement for product candidates can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases at short notice, and we believe that changes in these rules and regulations are likely.

Our operations are also subject to extensive governmental price controls and other market regulations in the United Kingdom and other countries outside of the United States, and we believe the increasing emphasis on cost-containment initiatives in European and other countries will put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical product candidates are subject to varying price control mechanisms as part of national health systems. To obtain reimbursement or pricing approval, some of these countries might compare the new product to an existing standard of care, including other treatments aimed at the same disease, if they exist. Health technology assessments, including cost-effectiveness evaluations, may be conducted in order to assess the medical value or added clinical benefit of a therapy. Countries may also conduct budget-impact assessments for a new therapy. In some cases, tendering is used to decide which therapy will be reimbursed and made available for a group of patients where more than one treatment exists. Countries might also require further studies or in-use evidence to be developed, or create coverage with evidence generation under some form of so-called managed access agreements. Some countries allow for a company to set the price, which is then agreed in negotiation with the country authorities, who might then monitor sales for that product and re-assess or re-evaluate when a certain statutory health insurance expenditure threshold is reached. Other countries might set their price based on prices in a selected country or group of countries under international or external reference pricing systems. If an agreement cannot be reached, confidential discounts might be negotiated between the manufacturer and the healthcare system authorities. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our product candidates may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the

level of reimbursement for newly approved product candidates and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of our product candidates due to the trend toward managed health care, the increasing influence of health maintenance organizations, and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new product candidates.

Our existing and future product candidates may not gain market acceptance, in which case our ability to generate product revenues will be compromised.

Even if the FDA, the EMA, or any other regulatory authority approves the marketing of our product candidates, whether developed on our own or with a collaborator, physicians, healthcare providers, patients, or the medical community may not accept or use our product candidates. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenue or any profits from operations. The degree of market acceptance of our product candidates will depend on a variety of factors, including:

- the timing of market introduction;
- the number and clinical profile of competing product candidates;
- the clinical indications for which our product candidates are approved;
- our ability to provide acceptable evidence of safety and efficacy;
- the prevalence and severity of any side effects;
- relative convenience and ease of administration;
- cost-effectiveness;
- marketing and distribution support;
- availability of adequate coverage, reimbursement, and adequate payment from health maintenance organizations and other insurers, both public and private; and
- other potential advantages over alternative treatment methods.

If our product candidates fail to gain market acceptance, our ability to generate revenues will be adversely affected. Even if our product candidates achieve market acceptance, the market may prove not to be large enough to allow us to generate significant revenues.

Any product candidates for which we intend to seek approval as biologic product candidates in the United States may face competition sooner than anticipated.

In the United States, the Biologics Price Competition and Innovation Act of 2009 (the “BPCIA”) created an abbreviated approval pathway for biological product candidates that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor’s own pre-clinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity, and potency of its product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when processes intended to implement the BPCIA may be fully adopted by the FDA, any such processes could adversely affect the future commercial prospects for any biological product candidates.

We believe that if any product is approved as a biological product under a BLA, it should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference product candidates for competing product candidates, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for a reference product in a way that is similar to traditional generic substitution for non-biological product candidates is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

In the EU, MAAs for product candidates that are biosimilar to an already authorized biological product, the so-called reference product, can rely on the safety and efficacy data contained in the dossier of the reference product. To qualify as a biosimilar product the marketing authorization applicant must demonstrate, through comprehensive comparability studies with the reference product, that its product is: (i) highly similar to the reference product notwithstanding the natural variability inherent to all biological medicines, and (ii) that there are no clinically meaningful differences between the biosimilar and the reference product in terms of safety, quality, and efficacy. Biosimilars can only be authorized for use after the period of exclusivity of the reference biological medicine has expired. In general, this means that the biological reference product must have been authorized for at least 10 years before a biosimilar can be made available by another company.

Risks Related to Our Dependence on Third Parties

We rely, and expect to continue to rely, on third parties, including independent investigators and CROs, to conduct our clinical trials. If these CROs do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.

We have relied upon and plan to continue to rely upon independent clinical investigators and CROs to conduct our clinical trials and to monitor and manage data for our ongoing clinical programs. We rely on these parties for the execution of our clinical trials and control only certain aspects of these parties' activities. Nevertheless, we are responsible for ensuring that each of our studies and trials is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on these third parties does not relieve us of our regulatory responsibilities. We and our independent investigators and CROs are required to comply with GxP requirements, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area, and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GxP requirements through periodic inspections of trial sponsors, principal investigators and trial sites. If we fail to exercise adequate oversight over any of our independent investigators or CROs or if we or any of our independent investigators or CROs fail to comply with applicable GxP requirements, the clinical data generated in our clinical trials may be deemed unreliable and the FDA, the EMA, or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon a regulatory inspection of us or our independent investigators or CROs, such regulatory authority will determine that any of our clinical trials complies with GxP requirements. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

Further, these independent investigators and CROs are not our employees and we are not able to control, other than by contract, the amount of resources, including time, which they devote to our clinical trials. If our independent investigators or CROs fail to devote sufficient resources to the development of our product candidates, or if their performance is substandard, it may delay or

compromise the prospects for approval and commercialization of our product candidates. In addition, the use of third-party service providers requires us to disclose our proprietary information to these parties, which could increase the risk that this information is misappropriated.

If any of our relationships with our independent investigators or CROs terminate, we may not be able to enter into arrangements with alternative independent investigators or CROs or to do so on commercially reasonable terms. Switching or adding additional investigators or CROs involves additional cost and potential delays and requires our management's time and focus. In addition, there is a natural transition period when a new independent investigator or CRO commences work. As a result, delays could occur, which could materially impact our ability to meet our desired clinical development timelines.

If our independent investigators or CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to a failure to adhere to our clinical protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed, or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We currently rely on third-party CMOs for the production of clinical supply of our product candidates and intend to rely on CMOs for the production of commercial supply of our product candidates, if approved. Our dependence on CMOs may impair the development of our product candidates and may impair the commercialization of our product candidates, which would adversely impact our business and financial position.

We have limited personnel with experience in manufacturing, and we do not own facilities for manufacturing our product candidates. Instead, we rely on and expect to continue to rely on CMOs for the supply of cGMP grade clinical trial materials and commercial quantities of our product candidates, if approved. Reliance on CMOs may expose us to more risk than if we were to manufacture our product candidates ourselves. Novartis previously provided clinical supplies for setrusumab, acumapimod, and leflutrozole and certain transitional services. We have moved the clinical supply manufacture for these product candidates to CMOs. We also intend to contract with CMOs for the clinical supply of alvelestat.

The facilities used to manufacture our product candidates must be approved by the FDA, the EMA, and comparable foreign authorities pursuant to inspections. While we provide oversight of manufacturing activities, we do not and will not control the execution of our manufacturing activities by, and are or will be essentially dependent on, our CMOs for compliance with cGMP requirements for the manufacture of our product candidates. As a result, we are subject to the risk that our product candidates may have manufacturing defects that we have limited ability to prevent. If a CMO cannot successfully manufacture material that conforms to our specifications and the regulatory requirements, we will not be able to secure or maintain regulatory approval for the use of our investigational medicinal product candidates in clinical trials, or for commercial distribution of our product candidates, if approved. In addition, we have limited control over the ability of our CMOs to maintain adequate quality control, quality assurance and qualified personnel. If the FDA, the EMA or comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would delay our development program and significantly impact our ability to develop, obtain regulatory approval for or commercialize our product candidates, if approved. In addition, any failure to achieve and maintain compliance with these laws, regulations and standards could subject us to the risk that we may have to suspend the manufacturing of our product candidates or that obtained approvals could be revoked. Furthermore, CMOs may breach existing agreements they have with us

because of factors beyond our control. They may also terminate or refuse to renew their agreement at a time that is costly or otherwise inconvenient for us. In addition, the manufacture of biologics involves expensive and complex processes and worldwide capacity at CMOs for the manufacture of biologics is currently limited. In addition, Novartis has a contractual right to approve or reject any additional CMO we wish to engage for the manufacture of setrusumab, other than those CMOs that we and Novartis have already agreed upon. If we were unable to find an adequate CMO or another acceptable solution in time, our clinical trials could be delayed or our commercial activities could be harmed.

We rely on and will continue to rely on CMOs to purchase from third-party suppliers the raw materials necessary to produce our product candidates. We do not and will not have control over the process or timing of the acquisition of these raw materials by our CMOs. Moreover, we currently do not have any agreements for the production of these raw materials. Supplies of raw material could be interrupted from time to time and we cannot be certain that alternative supplies could be obtained within a reasonable timeframe, at an acceptable cost, or at all. In addition, a disruption in the supply of raw materials could delay the commercial launch of our product candidates, if approved, or result in a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates. Growth in the costs and expenses of raw materials may also impair our ability to cost effectively manufacture our product candidates. There are a limited number of suppliers for the raw materials that we may use to manufacture our product candidates and we may need to assess alternate suppliers to prevent a possible disruption of the manufacture of our product candidates.

Finding new CMOs or third-party suppliers involves additional cost and requires our management's time and focus. In addition, there is typically a transition period when a new CMO commences work. Although we generally do not begin a clinical trial unless we believe we have on hand, or will be able to obtain, a sufficient supply of our product candidates to complete the clinical trial, any significant delay in the supply of our product candidates or the raw materials needed to produce our product candidates, could considerably delay conducting our clinical trials and potential regulatory approval of our product candidates.

As part of their manufacture of our product candidates, our CMOs and third-party suppliers are expected to comply with and respect the proprietary rights of others. If a CMO or third-party supplier fails to acquire the proper licenses or otherwise infringes the proprietary rights of others in the course of providing services to us, we may have to find alternative CMOs or third-party suppliers or defend against claims of infringement, either of which would significantly impact our ability to develop, obtain regulatory approval for or commercialize our product candidates, if approved.

We intend to enter into strategic relationships with third parties, based on a product-by-product assessment, for the development of some of our product candidates. If we fail to enter into these arrangements, our business, development and commercialization prospects could be adversely affected.

Our development program for our product candidates, particularly as we enter late-stage development, will require substantial additional funds. We currently intend to enter into strategic relationships with pharmaceutical, biopharmaceutical or other partners for the continued development of our non-rare disease product candidates, acumapimod, etigilimab and leflutrozole, and we may take the same approach for other product candidates. Alternatively, we may seek to sell or out-license one or more of our non-rare disease product candidates. See "—Risks Related to Our Business and Industry—Following the Licensing Agreement for Navi, and if we sell or out-license other of our non-rare disease product candidates or out-license any of our rare disease product candidates for any territories, we could be exposed to future liabilities."

The types of development arrangements referred to above are complex and time-consuming to negotiate and document, and we may not be able to enter into these arrangements on favorable terms

or at all. In addition, we face significant competition from other companies in seeking out these types of development arrangements. If we are successful in entering into such an arrangement, we will be subject to other risks, including our inability to control the amount of time and resources the third party will dedicate to our product candidates, financial or other difficulties experienced by such third party, relinquishing important rights to such third party, and the arrangement failing to be profitable to us.

If we are unable to enter into an appropriate arrangement for the development of our non-rare disease product candidates, we may have to reduce, delay, or terminate the development of such product candidates. We could also seek to sell or out-license one or more of our non-rare disease product candidates. If we, instead, decide to increase our expenditures to fund development activities on our own, we will need to obtain additional capital, which may not be available to us on acceptable terms or at all. As a result, our business may be substantially harmed.

See also "—Risks Related to Commercialization—We intend to directly commercialize or co-commercialize our product candidates for rare diseases and to seek strategic relationships with third parties for the development and/or commercialization of our product candidates for non-rare diseases. If we are unable to develop our own sales, marketing, and distribution capabilities or enter into business arrangements, we may not be successful in commercializing our product candidates."

Risks Related to Intellectual Property

We rely on patents and other intellectual property rights to protect our product candidates, the obtainment, enforcement, defense and maintenance of which may be challenging and costly. Failure to enforce or protect these rights adequately could harm our ability to compete and impair our business.

Our commercial success depends in part on obtaining and maintaining patents and other forms of intellectual property protection, for example, for compositions-of-matter of our product candidates, formulations of our product candidates, polymorphs, salts and analogs of our product candidates, methods used to manufacture our product candidates, methods for manufacturing of the final drug product candidates, and methods of using our product candidates for the treatment of the indications we are developing or plan to develop, or on in-licensing such rights. Our patent portfolio comprises patents and patent applications which cover our setrusumab, acumapimod, and leflutrozole product candidates acquired or exclusively licensed from Novartis, patents and patent applications which cover our alvelestat product candidate exclusively licensed (with the option to purchase) from AstraZeneca, and patents and patent applications which cover Navi and our etigilimab product candidate (solely owned by OncoMed). The assignments of those patents and patent applications which we acquired from Novartis have been registered with the relevant authorities in key territories and the exclusive licenses from AstraZeneca have also been registered with the relevant authorities in key territories. There is no assurance that our pending patent applications will result in issued patents, or if issued as patents, will include claims with sufficient scope of coverage to protect our product candidates, or that any pending patent applications will be issued as patents in a timely manner. Failure to obtain, maintain or extend adequate patent and other intellectual property rights could adversely affect our ability to develop and market our product candidates, resulting in harm to our business.

The patent prosecution process is expensive and time-consuming. We or our licensors may not be able to prepare, file and prosecute all necessary or desirable patent applications for a commercially reasonable cost or in a timely manner or in all jurisdictions. It is also possible that we or our licensors may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection for them. Moreover, depending on the terms of any future in-licenses to which we may become a party, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology in-licensed from third parties. Therefore, these patents and patent

applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

Further, the issuance, scope, validity, enforceability, and commercial value of our and our current or future licensors' patent rights are highly uncertain. Our and our licensors' pending and future patent applications may not result in issued patents that protect our technology or product candidates, in whole or in part, or that effectively prevent others from commercializing competitive technologies and product candidates. The patent examination process may require us or our licensors to narrow the scope of the claims of our or our licensors' pending and future patent applications, which may limit the scope of patent protection that may be obtained. We cannot assure that all of the potentially relevant prior art relating to our patents and patent applications has been found. If such prior art exists, it can invalidate a patent or prevent a patent application from being issued as a patent. Even if patent applications do successfully issue as patents and even if such patents cover our product candidates, third parties may initiate an opposition, interference, reexamination, post grant review, inter partes review, nullification or derivation action in courts or before patent offices, or similar proceedings challenging the validity, enforceability, or scope of such patents, which may result in the patent claims being narrowed or invalidated. Our and our licensors' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such patent applications, and then only to the extent the issued claims cover the technology.

Because patent applications are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we or our licensors were the first to file any patent application related to our product candidates. Furthermore, in the United States, if third parties have filed such patent applications on or before March 15, 2013, the date on which the United States changed from a first to invent to a first to file patent system, an interference proceeding can be initiated by such third parties to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. If third parties have filed such applications after March 15, 2013, a derivation proceeding can be initiated by such third parties to determine whether our invention was derived from such third parties' product candidates. Even where we have a valid and enforceable patent, we may not be able to exclude others from practicing our invention where the other party can show that they used the invention in commerce before our filing date or the other party benefits from a compulsory license.

We enjoy only limited geographical protection with respect to certain patents and may not be able to protect our intellectual property rights throughout the world.

Filing and prosecuting patent applications and maintaining and defending patents covering our product candidates in all countries throughout the world would be prohibitively expensive. Competitors may use our and our licensors' technologies in jurisdictions where we have not obtained patent protection to develop their competitor's own product candidates and, further, may export otherwise infringing product candidates to territories where we and our licensors have patent protection, but enforcement rights are not as strong as that in the United States or Europe. These product candidates may compete with our product candidates, and our and our licensors' patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

In addition, we may decide to abandon national and regional patent applications before grant. The examination of each national or regional patent application is an independent proceeding. As a result, patent applications in the same family may issue as patents in some jurisdictions, such as in the United States, but may issue as patents with claims of different scope or may even be refused in other jurisdictions, such as in China, which has different requirements for patentability, including a stringent requirement for a detailed description of medical uses of a claimed drug. It is also quite common that depending on the country, the scope of patent protection may vary for the same product or technology.

The laws of some jurisdictions do not protect intellectual property rights to the same extent as the laws or rules and regulations in the United States and Europe, and many companies have encountered significant difficulties in protecting and defending such rights in such jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents or marketing of competing product candidates in violation of our proprietary rights generally. Proceedings to enforce our patent rights in other jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing as patents, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Furthermore, while we intend to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate, which may have an adverse effect on our ability to successfully commercialize our product candidates in all of our expected significant foreign markets. If we or our licensors encounter difficulties in protecting, or are otherwise precluded from effectively protecting, the intellectual property rights important for our business in such jurisdictions, the value of these rights may be diminished and we may face additional competition from others in those jurisdictions.

Some countries also have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, some countries limit the enforceability of patents against government agencies or government contractors. In those countries, the patent owner may have limited remedies, which could materially diminish the value of such patents. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired.

Our patents and other proprietary rights may not adequately protect our technologies and product candidates, and may not necessarily address all potential threats to our competitive advantage.

The degree of protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- others may be able to make compounds that are the same as or similar to our product candidates but that are not covered by the claims of the patents that we own or have exclusively licensed;
- the patents of third parties may impair our ability to develop or commercialize our product candidates;
- the patents of third parties may be extended beyond the expected patent term and thus may impair our ability to develop or commercialize our product candidates;
- we or our licensors or any future strategic collaborators might not have been the first to conceive or reduce to practice the inventions covered by the issued patents or pending patent applications that we own or have exclusively licensed;
- we or our licensors or any future strategic collaborators might not have been the first to file patent applications covering our inventions, our product candidates, or uses of the product candidates in the indications under our development or to be developed;

- it is possible that the pending patent applications that we own or have exclusively licensed may not lead to issued patents;
- issued patents that we own or have exclusively licensed may not provide us with any competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- issued patents that we own or have exclusively licensed may not provide coverage for all aspects of our product candidates in all countries, such as for uses of our product candidates in the indications under our development or to be developed;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive product candidates for sale in our major commercial markets;
- others performing manufacturing or testing for us using our product candidates or technologies could use the intellectual property of others without obtaining a proper license;
- our or our licensors' inventions or technologies may be found to be not patentable; and
- we may not develop additional technologies that are patentable.

We may become subject to third parties' claims alleging infringement of third-party patents and proprietary rights, or we may be involved in lawsuits to protect or enforce our patents and other proprietary rights, which could be costly and time consuming, delay or prevent the development and commercialization of our product candidates, or put our patents and other proprietary rights at risk.

Our commercial success depends, in part, upon our ability to develop, manufacture, market, and sell our product candidates without alleged or actual infringement, misappropriation, or other violation of the patents and proprietary rights of third parties. Litigation relating to patents and other intellectual property rights in the biopharmaceutical and pharmaceutical industries is common, including patent infringement lawsuits and interferences, oppositions, and reexamination proceedings before the U.S. Patent and Trademark Office (the "USPTO"), and foreign patent offices. The various markets in which we plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property-dependent industries, including in the biopharmaceutical and pharmaceutical industries, have employed intellectual property litigation as a means to gain an advantage over their competitors. Numerous U.S., European, and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing product candidates. Some claimants may have substantially greater resources than we have and may be able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. In addition, patent holding companies that focus solely on extracting royalties and settlements by enforcing patent rights may target us. As the biopharmaceutical and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the intellectual property rights of third parties.

We may be subject to third-party claims including infringement, interference or derivation proceedings, post-grant review and inter partes review before the USPTO, or similar adversarial proceedings or litigation in the U.S. and other jurisdictions. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third-party patents are valid, enforceable and infringed, and the holders of any such patents may be able to block our ability to commercialize the applicable product unless we obtained a license under the applicable patents, or until such patents expire or are finally determined to be invalid or unenforceable. Similarly, if any third-party patents were held by a court of competent jurisdiction to cover aspects of our compositions, formulations, or

methods of treatment, prevention, or use, the holders of any such patents may be able to block our ability to develop and commercialize the applicable product unless we obtained a license or until such patent expires or is finally determined to be invalid or unenforceable. In addition, defending such claims would cause us to incur substantial expenses and could cause us to pay substantial damages, if we are found to be infringing a third party's patent rights. These damages potentially include increased damages and attorneys' fees if we are found to have infringed such rights willfully. As an example of the foregoing risks, we are aware of a third-party patent family which currently includes a patent granted by the European Patent Office ("EPO"), containing claims that appear to cover the use of setrusumab in the treatment of OI. The patent owner could assert such patent against us, which could present the foregoing risks and impose limitations in our ability to develop, manufacture or sell setrusumab for such use in the EU, unless we obtain a license under such patent, such patent is determined to be invalid or unenforceable by the EPO or a national court in one or more relevant territories, or such patent is revoked or otherwise limited by the EPO. This patent is currently the subject of ongoing opposition proceedings before the EPO, but there can be no assurance as to the outcome of such proceedings.

Any of our patents may be challenged, narrowed, circumvented, or invalidated by third parties. The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. We may be subject to a third party preissuance submission of prior art to the USPTO or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge priority of invention or other features of patentability. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and product candidates. Such proceedings also may result in substantial cost and require significant time from us, even if the eventual outcome is favorable to us.

Further, if a patent infringement suit is brought against us or our third-party service providers, our development, manufacturing or sales activities relating to the product or product that is the subject of the suit may be delayed or terminated. As a result of patent infringement claims, or in order to avoid potential infringement claims, we may choose to seek, or be required to seek, a license from the third party, which would be likely to include a requirement to pay license fees or royalties or both. These licenses may not be available on acceptable terms or at all. Even if a license can be obtained on acceptable terms, the rights may be nonexclusive, which would give our competitors access to the same intellectual property rights. If we are unable to enter into a license on acceptable terms, we could be prevented from commercializing one or more of our product candidates, or forced to modify such product candidates, or to cease some aspect of our business operations, which could harm our business significantly. We might, if possible, also be forced to redesign our product candidates so that we no longer infringe the third-party intellectual property rights, which may result in significant cost and delay to us, or which redesign could be technically infeasible. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business.

If we were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that our patent is invalid or unenforceable. In

patent litigation in the United States and in Europe, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness, or non-enablement. Third parties might allege unenforceability of our patents because someone connected with prosecution of the patent withheld relevant information, or made a misleading statement, during prosecution. The outcome of proceedings involving assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity of patents, for example, we cannot be certain that there is no invalidating prior art of which we and the patent examiner were unaware during prosecution. There is a risk that in connection with such proceedings, a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patent claims do not cover the invention. Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. An adverse outcome in a litigation or proceeding involving one or more of our patents could limit our ability to assert those patents against those parties or other competitors, and may curtail or preclude our ability to exclude third parties from making and selling similar or competing product candidates. In addition, if the breadth or strength of protection provided by our patents is threatened, it could dissuade companies from collaborating with us to license, develop, or commercialize our current or future product candidates.

Furthermore, our patents and other intellectual property rights also will not protect our technology if competitors and other third parties design around our protected technology without infringing our patents or other intellectual property rights. For example, a third party may develop a competitive product that provides benefits similar to our product candidates but that uses a technology that falls outside the scope of our patent protection. Our competitors may also seek approval to market generic versions of any approved products and in connection with seeking such approval may claim that our patents are invalid, unenforceable or not infringed. In these circumstances, we may need to defend or assert our patents, or both, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or other agency with jurisdiction may find our patents invalid or unenforceable, or that our competitors are competing in a non-infringing manner. Thus, even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives. If the patent protection provided by the patents and patent applications we hold or pursue with respect to our product candidates is not sufficiently broad to impede such competition, our ability to successfully commercialize our product candidates could be negatively affected.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management personnel from their normal responsibilities. Such litigation or proceedings could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have an adverse effect on our ability to compete in the marketplace. There could also be public announcements of the results of hearings, motions, or other

interim proceedings or developments. If securities analysts or investors view these announcements in a negative light, the price of our ADSs could be adversely affected.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent which might adversely affect our ability to develop, manufacture and market our product candidates.

We cannot guarantee that any of our, our licensors', or the previous owners' patent searches or analyses, including but not limited to the identification of relevant patents, the scope of patent claims, or the expiration of relevant patent applications or patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and patent application in the United States, Europe and elsewhere that is relevant to or necessary for the commercialization of our product candidates in any jurisdiction. For example, in the United States, patent applications filed before November 29, 2000 and, upon request, certain patent applications filed after that date that will not be filed outside the United States, remain confidential until those patent applications issue as patents. Patent applications in the United States, EU, and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our product candidates could have been filed by others without our knowledge, including any such patent applications that may claim priority from patent applications for patents that we have determined will expire before we commercialize our product candidates. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidates or the use of our product candidates. Moreover, as we study our product candidates during development, we may learn new information regarding their structure, composition, properties, or functions that may render third-party patent applications or patents that we had not identified as being, or that we had not believed to be, relevant to our product candidates instead to be relevant to or necessary for the commercialization of our product candidates in a jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in the patent, and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending patent application may be incorrect. We may incorrectly determine that our product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending patent application will issue with claims of relevant scope. Our determination of the expiration date or the possibility of an extension of patent term of any patent in the United States, Europe, or elsewhere that we consider relevant also may be incorrect. Any of the foregoing circumstances, failures, or errors may negatively impact our ability to develop and market our product candidates.

If we fail to comply with our obligations under our existing and any future intellectual property licenses with third parties, we could lose license rights that are important to our business, and our business may be substantially harmed as a result.

We are party to agreements with Novartis and AstraZeneca, under which we in-license certain intellectual property and were assigned, in the case of Novartis, or granted an option to acquire, in the case of AstraZeneca, certain patents and patent applications related to our business. In addition, we are party to an agreement with Oncologie, pursuant to which we have out-licensed certain intellectual property. We may enter into additional license agreements in the future. Our existing license agreements impose and any future license agreements are likely to impose various diligence, milestone payment, royalty, insurance and other obligations on us. Any uncured, material breach under these license agreements could result in the loss of our rights to practice such in-licensed intellectual property, and could compromise our development and commercialization efforts for any current or future product candidates.

We may not be successful in maintaining necessary rights to our product candidates or obtaining patent or other intellectual property rights important to our business through acquisitions and in-licenses.

We currently own and have in-licensed rights to intellectual property, including patents, patent applications and know-how, relating to our product candidates, and our success will likely depend on maintaining these rights. Because our programs may require the use of proprietary rights held by third parties, the growth of our business will likely depend in part on our ability to continue to acquire, in-license, maintain, or use these proprietary rights. In addition, our product candidates may require specific formulations to work effectively and the rights to those formulations or methods of making those formulations may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes, or other third-party intellectual property rights that we identify as necessary for the development and commercialization of our product candidates. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies also are pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources, and greater clinical development and commercialization capabilities.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We may also be unable to license or acquire third-party intellectual property rights on a timely basis, on terms that would allow us to make an appropriate return on our investment, or at all. Even if we are able to obtain a license to intellectual property of interest, we may not be able to secure exclusive rights, in which case others could use the same rights and compete with us. If we are unable to successfully obtain a license to third-party intellectual property rights necessary for the development of our product candidates or a development program on acceptable terms, we may have to abandon development of our product candidates or that development program.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance and annuity fees on any issued patent are due to be paid to the USPTO and foreign patent agencies over the lifetime of a patent. In addition, the USPTO and other foreign patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. While an inadvertent failure to make payment of such fees or to comply with such provisions can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which such non-compliance will result in the abandonment or lapse of the patent or patent application, and the partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, and non-payment of fees and failure to properly legalize and submit formal documents within prescribed time limits. If we or our licensors fail to maintain the patents and patent applications covering our product candidates or if we or our licensors otherwise allow our patents or patent applications to be abandoned or lapse, our competitors might be able to enter the market, which would hurt our competitive position and could impair our ability to successfully commercialize our product candidates in any indication for which they are approved.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may be subject to claims challenging the inventorship of our patents and patent applications or ownership of our intellectual property. In particular, we may be subject to claims that former employees

or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. While it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. For example, the assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, or we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Changes in patent laws or patent jurisprudence could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

As is the case with other biopharmaceutical and pharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical and pharmaceutical industries involve both technological complexity and legal complexity. Therefore, obtaining and enforcing biopharmaceutical and pharmaceutical patents is costly, time-consuming and inherently uncertain. In addition, the America Invents Act (the “AIA”), which was passed in September, 2011, resulted in significant changes to the U.S. patent system.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a “first-to-file” system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. A third party that files a patent application in the USPTO after that date but before us could therefore be awarded a patent covering an invention of ours even if we made the invention before it was made by the third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application, but circumstances could prevent us from promptly filing patent applications on our inventions.

Among some of the other changes introduced by the AIA are changes to the limitation where a patent may be challenged, thus providing opportunities for third parties to challenge any issued patent in the USPTO. This applies to all of our U.S. patents, even those issued before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action.

Accordingly, a third party may attempt to use the USPTO proceedings to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. It is not clear what, if any, impact the AIA will have on the operation of our business. However, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our or our licensors’ patent applications and the enforcement or defense of our or our licensors’ issued patents.

Additionally, the U.S. Supreme Court has ruled on several patent cases in recent years either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by Congress, the federal courts and the

USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. Similarly, the complexity and uncertainty of European patent laws have also increased in recent years. In addition, the European patent system is relatively stringent in the type of amendments that are allowed during prosecution. Complying with these laws and regulations could limit our ability to obtain new patents in the future that may be important for our business.

If we do not obtain protection under the Hatch-Waxman Amendments and similar non-U.S. legislation for extending the term of patents covering our product candidates, our ability to compete effectively could be impaired.

Depending upon the timing, duration and conditions of FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the "Hatch-Waxman Amendments." The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product or method of use as compensation for patent term lost during product development and the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Similar patent term extensions may be available in other jurisdictions. For example, a supplementary protection certificate in Europe may be applied for approval to recover some of the time lost between the patent application filing date and the date of first marketing authorization. However, we may not receive an extension if we fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents, or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, the period during which we can enforce our patent rights for that product will be shortened and our competitors may obtain approval to market competing product candidates sooner. As a result, our revenue from applicable product candidates could be reduced, possibly materially.

If our trademarks and trade names are not adequately protected, we may not be able to build name recognition in our markets of interest and our competitive position may be adversely affected.

We currently own registered trademarks. We may not be able to obtain trademark protection in territories that we consider of significant importance to us. In addition, any of our trademarks or trade names, whether registered or unregistered, may be challenged, opposed, infringed, cancelled, circumvented or declared generic, or determined to be infringing on other marks, as applicable. We may not be able to maintain and protect our rights to these trademarks and trade names, which we will need to build name recognition by potential collaborators or customers in our markets of interest. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected.

If we are unable to protect the confidentiality of our trade secrets and know-how, our business and competitive position would be harmed.

We consider proprietary trade secrets and confidential know-how and unpatented know-how to be important to our business. In addition to seeking patents for some of our technology and product candidates, we also may rely on trade secrets or confidential know-how to protect our technology, especially where patent protection is believed to be of limited value. However, trade secrets and confidential know-how are difficult to maintain as confidential.

To protect this type of information against disclosure or appropriation by competitors, our policy is to require our employees, consultants, contractors and advisors to enter into confidentiality agreements with us. We also seek to preserve the integrity and confidentiality of our data, trade secrets, and

know-how by maintaining physical security of our premises and physical and electronic security of our information technology systems. Monitoring unauthorized uses and disclosures is difficult, and we cannot know whether the steps we have taken to protect our proprietary technologies will be effective. In addition, current or former employees, consultants, contractors, and advisers may unintentionally or willfully disclose our confidential information to competitors, and confidentiality agreements may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. We therefore cannot guarantee that our trade secrets and other proprietary and confidential information will not be disclosed or that competitors will not otherwise gain access to our trade secrets. Enforcing a claim that a third party obtained illegally and is using trade secrets or confidential know-how is expensive, time consuming, and unpredictable. The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction. Furthermore, if a competitor lawfully obtained or independently developed any of our trade secrets, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret.

Failure to protect or maintain trade secrets and confidential know-how could adversely affect our business and our competitive position. Moreover, our competitors may independently develop substantially equivalent proprietary information and may even apply for patent protection in respect of the same. If successful in obtaining such patent protection, our competitors could limit our use of our own trade secrets or confidential know-how.

We may be subject to claims by third parties asserting that we or our employees have misappropriated third-party intellectual property, or claiming ownership of what we regard as our own intellectual property. These claims may be costly to defend and if we do not successfully do so, we may be required to pay monetary damages and lose valuable intellectual property rights or personnel.

Some of our employees, including our senior management, were previously employed at other biopharmaceutical or pharmaceutical companies, including our competitors or potential competitors. Some of these employees executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment. Although we try to ensure that our employees do not use the know-how, trade secrets, or other proprietary information of others in their work for us, we may be subject to claims that we or these employees have used or disclosed confidential information or intellectual property, including know-how, trade secrets, or other proprietary information, of any such employee's former employer. Litigation may be necessary to defend against these claims.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or undermine our ability to develop and commercialize our product candidates, which would severely harm our business. In addition, if such intellectual property rights were to be awarded to a third party, we could be required to obtain a license from such third party to commercialize our technology or product candidates. Such a license may not be available on commercially reasonable terms or at all, which could hamper or undermine our ability to develop and commercialize our product candidates, which would severely harm our business. Even if we successfully prosecute or defend against such claims, litigation could result in substantial costs and distract management from the development and commercialization of our product candidates.

Our proprietary information may be lost or we may suffer security breaches.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, clinical trial data, proprietary business information, personal data and personally identifiable

information of our clinical trial subjects and employees, in our data centers and on our networks. The secure processing, maintenance and transmission of this information is critical to our operations. Despite our security measures, our information technology and infrastructure and those of our CROs or other contractors or consultants may be vulnerable to attacks by hackers or breached due to employee error, malfeasance, or other disruptions. The loss of clinical trial data from completed, ongoing, or planned trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Although, to our knowledge, we have not experienced any such material security breach to date, any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost, or stolen. Any such access, disclosure, or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, and significant regulatory penalties; disrupt our operations; damage our reputation; and cause a loss of confidence in us and our ability to conduct clinical trials, which could adversely affect our reputation and delay our clinical development of our product candidates.

Risks Related to Employee Matters and Managing Growth

Our future growth and ability to compete depends on retaining our key personnel and recruiting additional qualified personnel.

Our success depends upon the continued contributions of our key management, including all of our senior management team, and scientific and technical personnel, many of whom have been instrumental for us and have substantial experience with rare and non-rare diseases and the biopharmaceutical and pharmaceutical industries. The loss of key managers and senior physicians or scientists could delay our acquisition and development activities. In addition, the competition for qualified personnel in the biopharmaceutical and pharmaceutical fields is intense, and our future success depends upon our ability to attract, retain and motivate highly skilled scientific, technical, and managerial employees. We face competition for personnel from other companies and organizations. If our recruitment and retention efforts are unsuccessful in the future, it may be difficult for us to achieve our development objectives, raise additional capital, and implement our business strategy.

We aim to expand our development, regulatory, and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our planned growth, which could disrupt our operations.

To manage our planned future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities or acquire new facilities, and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such planned growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Risks Related to the Offering and our ADSs

The market price for ADSs and the underlying ordinary shares may be volatile and may decline regardless of our operating performance, and the value of your investment could materially decline.

The trading price of ADSs may fluctuate, and the trading price of ordinary shares on AIM is likely to continue to fluctuate, substantially.

The market price of ADSs and ordinary shares may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- positive or negative results from, or delays in, testing or clinical trials conducted by our or our competitors;
- delays in entering into strategic relationships with respect to development or commercialization of our product candidates or entry into strategic relationships on terms that are not deemed to be favorable to us;
- technological innovations or commercial product introductions by us or competitors;
- changes in government regulations;
- developments concerning proprietary rights, including patents and litigation matters;
- public concern relating to the commercial value or safety of our product candidates;
- financing or other corporate transactions;
- publication of research reports or comments by securities or industry analysts, and variances in our periodic results of operations from securities analysts' estimates;
- general market conditions in the biopharmaceutical and pharmaceutical industries or in the economy as a whole;
- the loss of any of our key scientific or senior management personnel;
- sales of our ADSs or ordinary shares by us, our senior management and board members, holders of ADSs or our other security holders in the future;
- actions by institutional shareholders;
- speculation in the press or the investment community; or
- other events and factors, many of which are beyond our control.

These and other market and industry factors may cause the market price and demand for our ADSs to fluctuate substantially, regardless of our actual operating performance, which may limit or prevent investors from readily selling ADSs or ordinary shares and may otherwise negatively affect the liquidity of ADSs and ordinary shares.

In addition, the stock market in general, and emerging companies in particular, have experienced significant price and volume fluctuations that often have been unrelated to the operating performance of the companies affected by these fluctuations. These broad market fluctuations may adversely affect the trading price of ADSs and ordinary shares, regardless of our operating performance. In the past in the United States, when the market price of a security has been volatile, holders of that security have often instituted securities class action litigation against the issuer of such securities. If any of the holders of ADSs or ordinary shares were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our senior management would be diverted from the operation of our business. Any adverse determination in litigation could also subject us to significant liabilities.

The sale of our ADSs to Aspire Capital may cause substantial dilution to our existing shareholders and the sale of the ADSs acquired by Aspire Capital could cause the price of our ADSs to decline.

We are registering for sale the Initial Shares of 2,286,585 ADSs and the Commission Shares of 572,519 ADSs that the selling shareholder may receive upon exchange of ordinary shares that we have issued to the selling shareholder and up to $25.0 million worth of ordinary shares in the form of ADSs that we may sell to Aspire Capital under the Purchase Agreement. It is anticipated that shares registered in this offering will be sold over a period of up to approximately 30 months from the date of this prospectus. The number of ADSs ultimately offered for sale by Aspire Capital under this

prospectus is dependent upon the number of ADSs we elect to sell to Aspire Capital under the Purchase Agreement. Depending on a variety of factors, including market liquidity of our ADSs, the sale of ADSs under the Purchase Agreement may cause the trading price of our ADSs to decline.

Aspire Capital may ultimately purchase all, some or none of the additional $25.0 million worth of ordinary shares that are exchangeable for ADSs that, together with the Initial Shares and the Commission Shares, is the subject of this prospectus. Aspire Capital may sell all, some or none of our ADSs that it holds or comes to hold under the Purchase Agreement. Sales by Aspire Capital of ADSs acquired pursuant to the Purchase Agreement under the registration statement, of which this prospectus is a part, may result in dilution to the interests of other holders of our ADSs. The sale of a substantial number of ADSs by Aspire Capital in this offering, or anticipation of such sales, could cause the trading price of our ADSs to decline or make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise desire. However, we have the right under the Purchase Agreement to control the timing and amount of sales of our ADSs to Aspire Capital, and the Purchase Agreement may be terminated by us at any time at our discretion without any penalty or cost to us.

Future sales of ordinary shares or ADSs could depress the market price of ADSs.

If holders of ordinary shares or ADSs sell, or indicate an intent to sell, substantial amounts of ordinary shares or ADSs in the public markets, the trading price of ADSs or ordinary shares could decline significantly. These sales might also make it more difficult for us to sell equity or equity-related securities at a time and price that we otherwise would deem appropriate.

Circumstances affecting Woodford Investment Management Limited may have a material adverse impact on the price of our ADSs and ordinary shares.

Until October 15, 2019, Woodford Investment Management Limited (“Woodford”) indirectly through various funds held 27.6% of our shares, of which 19.6 percentage points were held by LF Woodford Equity Income Fund (the “Fund”) and 8.0 percentage points were held by Woodford Patient Capital Trust, Plc (“WPCT”). On October 15, 2019, Link Fund Solutions Limited (“Link”), as authorized corporate director of the Fund, announced its decision to wind the Fund up as soon as practicable by way of an orderly realization of the Fund’s assets (the “Winding-up Announcement”). This decision came after Link’s decision on June 3, 2019 to suspend redemptions and other dealings in shares in the Fund as a result of an increased level of redemptions from the Fund. Also on October 15, 2019, Woodford ceased to be the investment manager for the Fund. It was further announced that Link has allocated the Fund’s assets into two portfolios, one comprised of listed assets and one comprised of unlisted and certain highly illiquid listed assets. According to the Winding-Up Announcement, BlackRock Advisors (UK) Limited has been appointed to sell the assets in the first portfolio during the period until winding up of the Fund commences. In addition, PJT Partners (UK) Limited will continue to assist Link in selling the assets in the second portfolio. On January 18, 2020, the Fund was formally moved into wind-up. Schroder Investment Management succeeded Woodford as investment manager of WPCT, and WPCT was renamed Schroder UK Public Private Trust PLC. The first capital distribution by Link was paid to investors on January 30, 2020, and further capital distributions are expected to be made as and when suitable amounts of cash have been raised from the sale of the remaining assets of the Fund.

As a direct or indirect result of the foregoing, all or part of the shares previously held and managed by Woodford may be sold or otherwise disposed of, any of which may occur imminently. Any such sale or other disposition, or the possibility of such transactions, could cause the market price of our ADSs and ordinary shares to decline. This could make it more difficult for other shareholders to sell their ADSs and ordinary shares in us at a favorable price and time or at all. In addition, while Link retains control over approximately 15.3% of our shares, it will continue to exert significant influence over all

matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. Link's interests may conflict with your interests, including as a direct or indirect result of the above-described developments.

The dual listing of ordinary shares and ADSs is costly to maintain and may adversely affect the liquidity and value of ordinary shares and ADSs.

Our ADSs are listed for trading on Nasdaq and our ordinary shares trade on AIM. Since April 24, 2019 we have maintained a dual listing, which has generated and will continue to generate additional costs, including significant legal, accounting, investor relations, and other expenses that we did not incur prior to April 24, 2019, in addition to the costs associated with the additional reporting requirements described elsewhere in this prospectus. We cannot predict the effect of this dual listing on the value of our ADSs and ordinary shares. However, the dual listing of ADSs and ordinary shares may dilute the liquidity of these securities in one or both markets and may adversely affect the development of an active trading market for our ADSs. The price of our ADSs could also be adversely affected by trading in ordinary shares on AIM. In addition, the dual listing of ordinary shares and ADSs may cause the market price for ADSs and the underlying ordinary shares to fluctuate and decline regardless of our operating performance. See "—The market price for ADSs and the underlying ordinary shares may be volatile and may decline regardless of our operating performance, and the value of your investment could materially decline."

Fluctuations in the exchange rate between the U.S. dollar and the pound sterling may increase the risk of holding ADSs.

The share price of ordinary shares is quoted on AIM in pence sterling, while our ADSs trade on Nasdaq in U.S. dollars. Fluctuations in the exchange rate between the U.S. dollar and the pound sterling may result in differences between the value of our ADSs and the value of ordinary shares, which may result in heavy trading by investors seeking to exploit such differences. In addition, as a result of fluctuations in the exchange rate between the U.S. dollar and the pound sterling, the U.S. dollar equivalent of the proceeds that a holder of our ADSs would receive upon the sale in the United Kingdom of any ordinary shares withdrawn from the depositary, and the U.S. dollar equivalent of any cash dividends paid in pound sterling on ordinary shares represented by our ADSs, could also decline.

We have broad discretion in the use of the net proceeds from the offering and may not use them effectively.

Our senior management will have broad discretion in the application of the net proceeds from the offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our ADSs. The failure by our senior management to apply these funds effectively could result in financial losses, cause the price of our ADSs to decline, and delay the development of our product candidates. Pending their use, we may invest the net proceeds from the offering in a manner that does not produce income or that loses value.

Purchasers of ADSs in the offering may not have the same voting rights as the holders of our ordinary shares and may not receive voting materials in time to be able to exercise their right to vote.

Except as described in this prospectus, holders of our ADSs will not be able to exercise voting rights attaching to the ordinary shares represented by our ADSs on an individual basis. Holders of our ADSs will appoint the depositary or our nominee as their representative to exercise the voting rights attaching to the ordinary shares represented by our ADSs. Purchasers of ADSs in the offering may not receive voting materials in time to instruct the depositary to vote, and it is possible that they, or persons who hold their ADSs through brokers, dealers, or other third parties, will not have the opportunity to exercise a right to vote. Furthermore, the depositary will not be liable for any failure to carry out any instructions to vote, for the manner in which any vote is cast or for the effect of any such vote. As a

result, purchasers of ADSs in the offering may not be able to exercise voting rights and may lack recourse if their ADSs are not voted as requested. In addition, in their capacity as ADS holders, purchasers of ADSs in the offering will not be able to call a shareholders' meeting.

You may be subject to limitations on the transfer of ADSs and the withdrawal of the underlying ordinary shares.

ADSs are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when the depositary, in good faith, determines such action is necessary or advisable pursuant to the deposit agreement. The depositary may refuse to deliver, transfer or register transfers of ADSs generally when our books or the books of the depositary are closed, or at any time if we or the depositary thinks it is necessary or advisable to do so because of any requirement of law, government or governmental body, or under any provision of the deposit agreement, or for any other reason, subject to your right to cancel your ADSs and withdraw the underlying ordinary shares. Temporary delays in the cancellation of your ADSs and withdrawal of the underlying ordinary shares may arise because the depositary has closed its transfer books or we have closed our transfer books, the transfer of ordinary shares is blocked to permit voting at a shareholders' meeting or because we are paying a dividend on our ordinary shares.

In addition, you may not be able to cancel your ADSs and withdraw the underlying ordinary shares when you owe money for fees, taxes and similar charges to the depositary and when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to our ADSs or to the withdrawal of our ordinary shares or other deposited securities.

The rights of our shareholders may differ from the rights typically offered to shareholders of a U.S. corporation.

We are incorporated under English law. The rights of holders of ordinary shares and, therefore, certain of the rights of holders of ADSs, are governed by English law, including the provisions of the U.K. Companies Act 2006, and by our Articles of Association (our "Articles"). These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. See "Description of Share Capital and Articles of Association—Differences in Corporate Law" and "Description of Share Capital and Articles of Association—Articles of Association—Other U.K. Law Considerations—City Code on Takeovers and Mergers." in this prospectus for a description of the principal differences between the provisions of the U.K. Companies Act 2006 applicable to us and, for example, the Delaware General Corporation Law relating to shareholders' rights and protections.

The depositary for ADSs is entitled to charge holders fees for various services, including annual service fees.

The depositary for ADSs is entitled to charge holders fees for various services including for the issuance of ADSs upon deposit of ordinary shares, cancellation of ADSs, distributions of cash dividends or other cash distributions, distributions of ADSs pursuant to share dividends or other free share distributions, distributions of securities other than ADSs and annual service fees. In the case of ADSs issued by the depositary into The Depository Trust Company ("DTC"), the fees will be charged by the DTC participant to the account of the applicable beneficial owner in accordance with the procedures and practices of the DTC participant as in effect at the time. The depositary for ADSs will not be responsible for any United Kingdom stamp duty or stamp duty reserve tax arising upon the issuance or transfer of ADSs. For a discussion of the United Kingdom stamp duty and stamp duty reserve tax consequences of the issuance and transfer of ADSs, see "Material Tax Considerations—Material United Kingdom Tax Considerations—Stamp Duty and Stamp Duty Reserve Tax."

If securities or industry analysts do not publish research or publish inaccurate research or unfavorable research about our business, the price and trading volume of ordinary shares and ADSs could decline.

The trading market for our ordinary shares and ADSs depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades our ordinary shares or ADSs or publishes incorrect or unfavorable research about our business, the price of our ordinary shares and/or ADSs would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, or downgrades our ordinary shares or ADSs, demand for ADSs or ordinary shares could decrease, which could cause the price of ADSs and/or ordinary shares and/or trading volume to decline.

Our ADS holders may not be entitled to a jury trial with respect to claims arising under the deposit agreement, which could result in less favorable results to the plaintiff(s) in any such action.

The deposit agreement governing our ADSs provides that holders and beneficial owners of ADSs irrevocably waive the right to a trial by jury in any legal proceeding arising out of or relating to the deposit agreement or our ADSs, including claims under U.S. federal securities laws, against us or the depositary to the fullest extent permitted by applicable law. If this jury trial waiver provision is prohibited by applicable law, an action could nevertheless proceed under the terms of the deposit agreement with a jury trial. Although we are not aware of a specific federal decision that addresses the enforceability of a jury trial waiver in the context of U.S. federal securities laws, it is our understanding that jury trial waivers are generally enforceable. Moreover, insofar as the deposit agreement is governed by the laws of the State of New York, New York laws similarly recognize the validity of jury trial waivers in appropriate circumstances. In determining whether to enforce a jury trial waiver provision, New York courts and federal courts will consider whether the visibility of the jury trial waiver provision within the agreement is sufficiently prominent such that a party has knowingly waived any right to trial by jury. We believe that this is the case with respect to the deposit agreement and our ADSs.

In addition, New York courts will not enforce a jury trial waiver provision in order to bar a viable setoff or counterclaim sounding in fraud or one which is based upon a creditor's negligence in failing to liquidate collateral upon a guarantor's demand, or in the case of an intentional tort claim (as opposed to a contract dispute). No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depositary of compliance with any provision of U.S. federal securities laws and the rules and regulations promulgated thereunder.

If any holder or beneficial owner of ADSs brings a claim against us or the depositary in connection with matters arising under the deposit agreement or our ADSs, including claims under U.S. federal securities laws, such holder or beneficial owner may not be entitled to a jury trial with respect to such claims, which may have the effect of limiting and discouraging lawsuits against us or the depositary. If a lawsuit is brought against us or the depositary under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different results than a trial by jury would have had, including results that could be less favorable to the plaintiff(s) in any such action, depending on, among other things, the nature of the claims, the judge or justice hearing such claims, and the venue of the hearing.

You may not receive distributions on ordinary shares represented by ADSs or any value for them if it is unlawful or impractical to make them available to holders of ADSs.

Pursuant to the terms of the deposit agreement, the depositary for ADSs will distribute the cash dividends or other distributions it or the custodian receives on ordinary shares or other deposited securities after deducting its fees and expenses. You will receive these distributions in proportion to the number of ordinary shares your ADSs represent. However, in accordance with the limitations set forth

in the deposit agreement, it may be unlawful or impractical to make a distribution available to holders of ADSs. We have no obligation to take any other action to permit the distribution of ADSs, ordinary shares, rights or anything else to holders of ADSs. This means that you may not receive the distributions we make on our ordinary shares or any value from them if it is unlawful or impractical to make them available to you. These restrictions may have a material adverse effect on the value of ADSs.

It may be difficult for you to bring any action or enforce any judgment obtained in the United States against us or members of our Board, which may limit the remedies otherwise available to us.

We are incorporated as a public limited company in England and Wales, and the majority of our assets are located outside the United States. In addition, the majority of the members of our board of directors (our "Board") are nationals and residents of countries, including the United Kingdom, outside of the United States. Most or all of the assets of these individuals are located outside the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States if you believe your rights have been infringed under the securities laws or otherwise. In addition, a United Kingdom court may prevent you from enforcing a judgment of a U.S. court against us or these individuals based on the securities laws of the United States or any state thereof. A United Kingdom court may not allow you to bring an action against us or our directors based on the securities laws of the United States or any state thereof.

Shareholders in countries other than the United Kingdom will suffer dilution if they are unable to participate in future pre-emptive equity offerings.

Under English law, shareholders (being those shareholders that are included in a company's register of members as holders of the legal title to that company's shares) usually have pre-emptive rights to subscribe on a pro rata basis in the issuance of new shares for cash. The exercise of those pre-emptive rights by certain shareholders not resident in the United Kingdom may be restricted by applicable law or practice in the United Kingdom and overseas jurisdictions. In particular, the exercise of pre-emptive rights by United States shareholders would be prohibited unless an offering is registered under the Securities Act or an exemption from the registration requirements of the Securities Act applies. Furthermore, under the deposit agreement for our ADSs, the depositary generally will not make available those pre-emptive rights to holders of ADSs unless certain conditions are met, including that the provision of such pre-emptive rights to the ADS holders is reasonably practicable. If no exemption applies and we determine not to register such offering, shareholders in the United States may not be able or permitted to exercise their pre-emptive rights. We are also permitted under English law to disapply pre-emptive rights (subject to the approval of our shareholders by special resolution or the inclusion in the articles of a power to disapply such rights) either generally or in relation to a specific allotment and thereby exclude certain shareholders, such as overseas shareholders, from participating in a rights offering (usually to avoid a breach of local securities laws). See "Description of Share Capital and Articles of Association" for further information relating to the Company's existing authority to issue additional ordinary shares.

Holders of ADSs may not have the same voting rights as holders of ordinary shares and may not receive voting materials in time to be able to exercise their right to vote.

Holders of ADSs are not able to exercise voting rights attaching to ordinary shares underlying our ADSs on an individual basis. Each holder of ADSs has appointed the depositary or its nominee as the holder's representative to exercise, pursuant to the instructions of the holder, the voting rights attaching to our ordinary shares underlying our ADSs. Holders of ADSs may not receive voting materials in time to instruct the depositary to vote, and it is possible that they, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

Because we do not anticipate paying any cash dividends on ADSs or ordinary shares in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

Under English law, a company's accumulated realized profits must exceed its accumulated realized losses on a non-consolidated basis before dividends can be paid. Therefore, we must have distributable profits before issuing a dividend. We have not paid dividends in the past on our ordinary shares. Further, we intend to retain future earnings, if any, for use in our business and do not anticipate paying any cash dividends in the foreseeable future. In addition, our credit facility prohibits us from paying dividends on our equity securities without Kreos's consent, and any future debt agreements may likewise preclude us from paying dividends. As a result, capital appreciation, if any, on ADSs or ordinary shares will be your sole source of gains for the foreseeable future.

We are a "foreign private issuer" under the rules and regulations of the SEC and, as a result, are exempt from a number of rules under the Exchange Act and are permitted to file less information with the SEC than a company incorporated in the United States.

We are incorporated as a public limited company in England and Wales and are deemed to be a "foreign private issuer" under the rules and regulations of the SEC. As a foreign private issuer, we are exempt from certain rules under the Exchange Act that would otherwise apply if we were a company incorporated in the United States, including:

- the requirement to file periodic reports and financial statements with the SEC as frequently or as promptly as United States companies with securities registered under the Exchange Act;
- the requirement to file financial statements prepared in accordance with U.S. GAAP;
- the proxy rules, which impose certain disclosure and procedural requirements for proxy solicitations; and
- the requirement to comply with Regulation Fair Disclosure ("Regulation FD"), which imposes certain restrictions on the selective disclosure of material information.

In addition, our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act and the related rules with respect to their purchases and sales of our ADSs and ordinary shares.

As a foreign private issuer, we are not required to comply with some of the corporate governance standards of Nasdaq applicable to companies incorporated in the United States.

Our Board is required to meet certain corporate governance standards under Nasdaq Listing Rules, including the requirement to maintain an audit committee comprised of three or more directors satisfying the independence standards of Nasdaq applicable to audit committee members. While foreign private issuers are not required to comply with most of the other corporate governance rules of Nasdaq, we believe we currently comply with, and intend to continue to comply with, the majority of such requirements, including the requirements to maintain a majority of independent directors and nominating and compensation committees of our Board comprised solely of independent directors. We are required to follow the AIM rules and Corporate Governance Code published by the Quoted Companies Alliance. As a result, holders of our ADSs may not be afforded the benefits of the corporate governance standards of Nasdaq to the same extent applicable to companies incorporated in the United States. See "Management—Foreign Private Issuer Exemption" elsewhere in this prospectus.

Additional reporting requirements may apply if we lose our status as a foreign private issuer.

If we lose our status as a "foreign private issuer" under the rules and regulations of the SEC at some future time, then we will no longer be exempt from such rules and, among other things, will be required to file periodic reports and financial statements as if we were a company incorporated in the

United States. The costs incurred in fulfilling these additional regulatory requirements could be substantial.

Although our reporting obligations as a foreign private issuer are fewer than those of a public company incorporated in the United States, our costs of complying with our SEC reporting requirements are significant, and our management is required to devote substantial time to complying with SEC regulations.

As a company with securities listed in the United States, and particularly after we no longer qualify as an emerging growth company, we will incur significant legal, accounting, and other expenses that we did not incur previously. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of Nasdaq, and other applicable securities rules and regulations impose various requirements on non-U.S. reporting public companies, including the establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our senior management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified senior management personnel or members for our Board. In addition, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Failure to establish and maintain effective internal controls could have a material adverse effect on our business and stock price.

Pursuant to Section 404, we are required to furnish a report by our senior management on our internal control over financial reporting beginning with a report as at December 31, 2019 in our annual report on Form 20-F filing in early 2020. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented, and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

The executive officers, Board and certain of our existing shareholders own a majority or a significant portion of our outstanding ordinary shares and, as a result, have control or significant influence over us and our interests may conflict with the interests of these shareholders.

Our executive officers, Board and significant shareholders and their respective affiliates, in the aggregate, beneficially own a majority of our outstanding ordinary shares (including ordinary shares in the form of our ADSs). Depending on the level of attendance at our general meetings of shareholders, these shareholders either alone or voting together as a group may be in a position to control or significantly influence the outcome of decisions taken at any such general meeting. Any shareholder or

group of shareholders controlling more than 50% of the share capital present and voting at our general meetings of shareholders may control any shareholder resolution requiring a simple majority, including the appointment of board members, certain decisions relating to our capital structure and the approval of certain significant corporate transactions. Any shareholder or group of shareholders controlling more than 75% of the share capital present and voting at our general meetings of shareholders may control any shareholder resolution amending our Articles. These shareholders may have interests that differ from ours and may vote in a way with which we disagree and which may be adverse to your interests. Among other consequences, this concentration of ownership may have the effect of delaying or preventing a change in control and might therefore negatively affect the market price of our ADSs and ordinary shares.

There is a significant risk that we will be a passive foreign investment company ("PFIC") for any taxable year, which could result in material adverse U.S. federal income tax consequences if you are a U.S. investor.

In general, a non-U.S. corporation will be a PFIC for any taxable year in which (i) 75% or more of its gross income consists of passive income (the "income test") or (ii) 50% or more of the value of its assets consists of assets (generally determined on a quarterly average basis) that produce, or are held for the production of, passive income (the "asset test"). For purposes of the above calculations, a non-U.S. corporation that directly or indirectly owns at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation. Passive income generally includes interest, dividends, gains from certain property transactions, rents and royalties (other than certain rents or royalties derived in the active conduct of a trade or business). Cash is a passive asset for PFIC purposes. Goodwill (the value of which may be determined by reference to the company's market capitalization) is treated as an active asset to the extent attributable to activities intended to produce active income.

We hold a significant amount of cash and cash equivalents and this may continue to be the case taking into account the cash raised in this offering. Therefore, whether we will satisfy the asset test for the current or any future taxable year generally will depend on the quarterly value of our goodwill and other intangible assets, and on how quickly we utilize the cash in our business. Because (i) the value of our goodwill may be determined by reference to the market prices of our shares or ADSs, which have been volatile given the nature and early stage of our business and have been declining, (ii) we may hold cash and cash equivalents in amounts that could be significant in relation to the value of our goodwill and other intangible assets and (iii) a company's PFIC status is an annual determination that can be made only after the end of each taxable year, there is a significant risk that we will be a PFIC under the asset test. In addition, it is not clear how to apply the income test to a company like us, which for any particular taxable year may have gross income that is either entirely passive or that significantly exceeds any active gross income, but the overall losses of which from research and development activities exceed the overall amount of its gross income for that year. We currently do not earn income from sales of drugs. Accordingly, U.S. investors should invest in our ADSs only if they are willing to bear the U.S. federal income tax consequences associated with investments in PFICs.

If we were a PFIC for any taxable year during which a U.S. investor owns ADSs or ordinary shares, certain adverse U.S. federal income tax consequences could apply to such U.S. investor. We provide the information necessary for a U.S. investor to make a qualifying electing fund election with respect to us. See "Material Tax Considerations—Material U.S. Federal Income Tax Considerations" for further information. U.S. investors should consult their tax advisers regarding our PFIC status for any taxable year and the potential application of the PFIC rules to an investment in our ADSs.

Risks Related to the Merger

We may not fully realize the anticipated benefits of the Merger or realize such benefits within the timing anticipated.

We entered into the Merger with OncoMed because we believed that the Merger would be beneficial to us and our shareholders. We may not be able to achieve the anticipated long-term strategic benefits of the Merger within the timing anticipated or at all. Any delays and challenges that may be encountered in completing the post-Merger process of consolidation could have an adverse effect on the business and results of our operations, and may affect the value of our ADSs and ordinary shares.

We may have failed to discover undisclosed liabilities of OncoMed.

Our investigations and due diligence review of OncoMed may have failed to discover undisclosed liabilities of OncoMed. If OncoMed has undisclosed liabilities, we as a successor owner may be responsible for such undisclosed liabilities. Such undisclosed liabilities could have an adverse effect on the business and results of operations of us and our subsidiaries and may adversely affect the value of our ADSs and ordinary shares.

Our intangible assets may become impaired, which could result in material non-cash charges to our results of operations.

We acquired a substantial quantity of intangible assets in the Merger. At least annually, or whenever events or changes in circumstances indicate a potential impairment in the carrying value as defined by IFRS as issued by the IASB, we will evaluate such intangible assets for impairment based on the recoverable value for such intangible assets, being the higher of fair value less costs to sell and value in use, of such intangible assets. Estimated fair values could change if there are changes in our capital structure, cost of debt, interest rates, capital expenditure levels, operating cash flows or market capitalization. Impairments of intangible assets could require material non-cash charges to our results of operations.

We may have operational challenges in managing OncoMed's business and staff following the Merger.

Mergers inherently have risks including misjudging key elements of an acquisition or failing to integrate it in an efficient and timely manner that would disrupt operations. In addition, as OncoMed is located in a different country and time zone, this also brings inherent management challenges. We are taking over existing ongoing clinical trials, which although are being conducted by reputable third party CRO contractors, remain our responsibility as the parent of OncoMed. We must also fully integrate OncoMed's retained employees within our existing management structure. We may face operational challenges in managing OncoMed's business and staff following the Merger which could have an adverse effect on the business and results of our operations, and may affect the value of our ADSs and ordinary shares.

OncoMed's ability to utilize its net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the United States Internal Revenue Code of 1986, as amended (the "Code"), if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an "ownership change" occurs if there is a cumulative change in ownership by "5% shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws.

At December 31, 2018, OncoMed had federal net operating loss carryforwards related to the 2018 tax year, amounting to $39.1 million which carryforward indefinitely and $228.6 million, which relate to prior taxable years, that begin to expire in 2023. At December 31, 2018, OncoMed had state net operating loss carryforwards of $97.2 million, which begin to expire in 2028, if not utilized. At December 31, 2018, OncoMed also had federal and California research and development credit carryforwards aggregating approximately $25.4 million and $19.8 million, respectively. The federal credits will expire in 2025, if not utilized. California research and development credits have no expiration date. At December 31, 2018, OncoMed also had federal orphan drug credit and Alternative Minimum Tax ("AMT") carryforwards of approximately $39.3 million and $1.5 million, respectively. The federal orphan drug credits will begin to expire in 2034, if not utilized. A U.S. federal tax refund in respect of the AMT carryforward of approximately $1.3 million was subsequently received in August 2019, following closing of the Merger.

We believe that the Merger counted as an "ownership change," which may impact OncoMed's ability to fully realize the benefit of its net operating loss carryforwards. If that is the case, then OncoMed may be further limited in its ability to use its net operating loss carryforwards and other tax assets to reduce taxes owed on the net taxable income that OncoMed earns. Any such limitations on the ability to use its net operating loss carryforwards and other tax assets could adversely impact OncoMed's business, financial condition and operating results.

DIVIDEND POLICY

We have never paid or declared any cash dividends on our ADSs or ordinary shares, and we do not anticipate paying any cash dividends on our ADSs or ordinary shares in the foreseeable future. We intend to retain future earnings, if any, for use in our business. Under English law, among other things, we may only pay dividends if we have sufficient distributable reserves (on a non-consolidated basis), which are our accumulated realized profits that have not been previously distributed or capitalized less our accumulated realized losses, so far as such losses have not been previously written off in a reduction or reorganization of capital.

In addition, the terms of our existing loan agreement with Silicon Valley Bank and Kreos Capital V (UK) Limited ("Kreos"), preclude us from paying cash dividends without Kreos's consent. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Indebtedness—Credit Facility."

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains statements that constitute forward-looking statements. Many of the forward-looking statements contained in this prospectus can be identified by the use of forward-looking words such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “plan,” “potential” and “should,” among others.

Forward-looking statements appear in a number of places in this prospectus and include, but are not limited to, statements regarding our intent, belief, or current expectations. Forward-looking statements are based on our management’s beliefs and assumptions and on information currently available to our management. Such statements are subject to substantial risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various important factors, including, but not limited to, those identified under “Risk Factors.” In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a guarantee by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Forward-looking statements include, but are not limited to, statements about:

- the development of our product candidates, including statements regarding the expected initiation, timing, progress, and availability of data from our clinical trials;
- the potential attributes and benefits of our product candidates and their competitive position;
- our ability to successfully commercialize, or enter into strategic relationships with third parties to commercialize, our product candidates, if approved;
- our estimates regarding expenses, future revenues, capital requirements, and our need for additional financing;
- our ability to continue as a going concern;
- our being subject to ongoing regulatory obligations if our product candidates secure regulatory approval;
- our reliance on third parties to conduct our clinical trials and on third-party suppliers to supply or produce our product candidates;
- the patient market size of any diseases and market adoption of our product candidates by physicians and patients;
- our ability to obtain and maintain adequate intellectual property rights and adequately protect and enforce such rights;
- the potential benefits from strategic sales or out-licensing of our non-rare product candidates;
- our ability to attain and/or maintain our desired pricing levels;
- our ability to be included in healthcare systems in certain regions;
- the duration of our patent portfolio;
- our ability to retain key personnel and recruit additional qualified personnel;
- our ability to manage growth;
- our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments, including the Merger with OncoMed; and
- other risk factors discussed under “Risk Factors.”

Forward-looking statements speak only as of the date they are made, and we do not undertake any obligation to update them in light of new information or future developments or to release publicly any revisions to these statements in order to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

MARKET AND INDUSTRY DATA

Certain industry data and market data included in this prospectus were obtained from independent third-party surveys, market research, publicly available information, reports of governmental agencies, and industry publications and surveys. All of the market data used in this prospectus involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We believe that the information from these industry publications and surveys included in this prospectus is reliable. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

TRADEMARKS, SERVICE MARKS AND TRADE NAMES

Solely for convenience, the trademarks, service marks, logos and trade names referred to in this prospectus are without the ® and ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, service marks, and trade names. This prospectus contains additional trademarks, service marks, and trade names of others, which are the property of their respective owners. All trademarks, service marks, and trade names appearing in this prospectus are, to our knowledge, the property of their respective owners. We do not intend our use or display of other companies' trademarks, service marks, copyrights, or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

CAPITALIZATION

The table below sets forth our cash and short-term deposits and short-term investments and capitalization as of June 30, 2019 derived from our unaudited interim consolidated financial statements included elsewhere in this prospectus.

You should read this table in conjunction with our unaudited interim consolidated financial statements included elsewhere in this prospectus.

For the convenience of the reader, we have translated pound sterling amounts in the table below into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on June 28, 2019, which was £1.00 to $1.2704. These translations should not be considered representations that any such amounts have been, could have been or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

	As of June 30, 2019 (unaudited, in thousands)	
Cash and short-term deposits and short-term investments	£ 36,118	$ 45,884
Total interest bearing loans and borrowings	£ 19,732	$ 25,068
Warrant liability	225	286
Equity:		
Issued capital	294	373
EBT shares	(1,305)	(1,658)
Share premium	121,684	154,587
Other capital reserves	58,004	73,688
Accumulated loss	(127,356)	(161,793)
Other reserves	7,000	8,893
Translation reserve	710	902
Total equity	59,031	74,992
Total capitalization	£ 78,988	$ 100,346

The table above excludes:

- 11,357,738 ordinary shares issuable upon the exercise of share options outstanding under Mereo's equity incentive plans as of June 30, 2019 at a weighted average exercise price of £1.45 per ordinary share;
- 875,050 ADSs issuable upon the exercise of share options outstanding under Mereo's equity incentive plans as of June 30, 2019 at a weighted average exercise price of $4.29 per ADS;
- 162,997 nil-cost ordinary shares that may be issued upon exercise of share options awarded under the Mereo BioPharma Group plc DBSP, as described in "Management—Equity Compensation Arrangements—The Mereo DBSP," as of June 30, 2019;
- 1,243,908 ordinary shares issuable upon the exercise of warrants to purchase ordinary shares outstanding as of June 30, 2019 at a weighted average exercise price of £2.95 per ordinary share, including 621,954 warrants exercisable by Silicon Valley Bank and 621,954 warrants exercisable by Kreos Capital V (UK) Limited; and
- 41,286 ordinary shares issuable upon the exercise of warrants to purchase ordinary shares outstanding as of June 30, 2019 at an exercise price of £0.003 per ordinary share exercisable by The Alpha-1 Project, Inc.

DILUTION

If you invest in our ADSs in this offering, your ownership interest will be diluted immediately to the extent of the difference between the offering price per ADS paid by purchasers in this offering and our as adjusted net tangible book value per ADS after completion of this offering. For the convenience of the reader, we have translated pound sterling amounts in this section into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on June 29, 2019, which was £1.00 to $1.2704. These translations should not be considered representations that any such amounts have been, could have been or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

At June 30, 2019, we had a net tangible book value of £29.8 million ($37.9 million), corresponding to a net tangible book value of £0.30 per ordinary share (equal to $1.93 per ADS). Net tangible book value per ordinary share represents the amount of our total assets less our total liabilities, excluding goodwill and other intangible assets, divided by the total number of our ordinary shares outstanding as of June 30, 2019.

After giving effect to the sale of 2,859,104 ADSs in this offering at an assumed public offering price of $1.56 per ADS, which reflects the last reported sale price of our ADS on Nasdaq on February 8, 2020, and after deducting the estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2019 would have been £32.2 million ($40.9 million), representing an as adjusted net tangible book value of $1.82 per ADS, or $0.36 per ordinary share. This represents an immediate decrease in net tangible book value of $0.11 per ADS to existing shareholders and an immediate dilution of $0.51 per ADS, or $0.10 per ordinary share, to new investors purchasing ADSs in this offering. Dilution per ADS to new investors is determined by subtracting the as adjusted net tangible book value per ADS after this offering from the $0.26 per ordinary share (equivalent to $1.31 per ADS) paid by the selling shareholder. For the purposes of calculating dilution, the $25.0 million worth of ordinary shares issuable to the selling shareholder have been excluded from the calculation because, if utilized in full, would result in an immediate accretion in the as adjusted net tangible book value and is therefore not meaningful.

The following table illustrates this dilution to new investors purchasing ADSs in this offering.

	Per ADS	Per Ordinary Share
Assumed public offering price	$ 1.56	$ 0.31
Historical net tangible book value as of June 30, 2019	$ 1.93	$ 0.39
Decrease in net tangible book value attributable to the offering	$ 0.11	$ 0.03
As adjusted net tangible book value as of June 30, 2019	$ 1.82	$ 0.36
Dilution to new investors in the offering	$ 0.51	$ 0.10

The dilution information above is illustrative only and will change based on the actual public offering price and other terms of this offering determined at pricing.

The table and discussion above exclude (in each case, as calculated as of June 30, 2019 pursuant to the terms of each instrument):

- 11,357,738 ordinary shares issuable upon the exercise of share options outstanding under Mereo's equity incentive plans as of June 30, 2019 at a weighted average exercise price of £1.45 per ordinary share;

- 875,050 ADSs issuable upon the exercise of share options outstanding under Mereo's equity incentive plans as of June 30, 2019 at a weighted average exercise price of $4.29 per ADS;
- 162,997 nil-cost ordinary shares that may be issued upon exercise of share options awarded under the Mereo BioPharma Group plc DBSP, as described in "Management—Equity Compensation Arrangements—The Mereo DBSP," as of June 30, 2019;
- 1,243,908 ordinary shares issuable upon the exercise of warrants to purchase ordinary shares outstanding as of June 30, 2019 at a weighted average exercise price of £2.95 per ordinary share, including 621,954 warrants exercisable by Silicon Valley Bank and 621,954 warrants exercisable by Kreos Capital V (UK) Limited;
- 41,286 ordinary shares issuable upon the exercise of warrants to purchase ordinary shares outstanding as of June 30, 2019 at an exercise price of £0.003 per ordinary share exercisable by The Alpha-1 Project, Inc;
- The 14,496,147 ordinary shares issuable upon conversion by Novartis of the New Novartis Notes issued on February 10, 2020, and the warrants issued to Novartis in connection therewith to purchase up to 1,449,614 ordinary shares at an exercise price of £0.265 per ordinary share; and
- The 12,252,715 ordinary shares issued to Boxer Capital under the terms of our agreement with Boxer Capital entered into on February 19, 2020.

To the extent that share or ADS options or warrants are exercised or we issue additional shares or ADSs in the future, there will be further dilution to investors participating in the offering. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our shareholders.

USE OF PROCEEDS

This prospectus relates to our ADSs representing ordinary shares that may be offered and sold from time to time by Aspire Capital. We will not receive any proceeds upon the sale of ADSs by Aspire Capital. However, we may receive proceeds of up to $28.0 million under the Purchase Agreement with Aspire Capital, which includes the $3.0 million that we received for sale of the Initial Shares to Aspire Capital.

The proceeds received from the sale of the ADSs under the Purchase Agreement are expected be used to advance the clinical development of setrusumab for the treatment of OI and alvelestat for the treatment of severe AATD, and to fund general research and development activities, working capital and other general corporate purposes, including the costs relating to entering into any third-party strategic relationship for development and commercialization of our non-rare disease product candidates. However, we cannot guarantee that we will receive any proceeds other than from the sale of the Initial Shares in connection with the Purchase Agreement because we may be unable or choose not to issue and sell any ADSs pursuant to the Purchase Agreement. Because of this, we have not determined the amount of net proceeds to be used specifically for any particular purpose or the timing of any expenditures. As a result, our management will retain broad discretion over the allocation of any net proceeds. Pending such uses, we plan to invest any net proceeds in short- and intermediate-term interest-bearing obligations and certificates of deposit.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following unaudited pro forma condensed combined financial information is comprised of the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019, after giving effect to the Merger as if it had occurred on January 1, 2018.

The Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared using the principles of the acquisition method of accounting in accordance with IFRS as issued by the IASB, and in particular IFRS 3, under which the Merger qualifies as the acquisition of OncoMed by us. On the date of the acquisition, April 23, 2019, the identifiable assets and liabilities of OncoMed, were recorded by us at their respective fair values.

Pro forma adjustments reflected in the Unaudited Pro Forma Condensed Combined Statement of Operations are based on items that are factually supportable and directly attributable to the Merger and which are expected to have a continuing impact on the consolidated entity.

The Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 has been prepared based on (i) our audited consolidated financial statements as of and for the year ended December 31, 2018 and (ii) the audited financial statements of OncoMed as of and for year ended December 31, 2018 included elsewhere in this prospectus.

The Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019 has been prepared based on (i) our unaudited consolidated interim financial statements as of and for the period ended June 30, 2019 and (ii) financial information received by us relating to OncoMed for the period January 1, 2019 through April 23, 2019.

Our consolidated financial statements are prepared in accordance with IFRS as issued by the IASB. The audited financial statements of OncoMed as of and for the year ended December 31, 2018 and financial information received by us relating to OncoMed for the period January 1, 2019 through April 23, 2019 was prepared in accordance with U.S. GAAP and for the purposes of the Unaudited Pro Forma Condensed Combined Statement of Operations, have been converted to IFRS as issued by the IASB on a basis consistent with the accounting policies and presentation adopted by us.

As noted above, the Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared using the acquisition method of accounting in accordance with IFRS 3. The accounting for the acquisition is dependent upon certain valuations that are preliminary and subject to change. We will finalize amounts as we obtain the information necessary to complete the measurement processes. Accordingly, the pro forma adjustments are preliminary. Differences between these preliminary estimates and the final acquisition accounting may occur and these differences could be material. The differences, if any, could have a material impact on the accompanying Unaudited Pro Forma Condensed Combined Statement of Operations and our future results of operations and financial position.

The Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared by our management in accordance with SEC Regulation S-X Article 11 for illustrative purposes only. The Unaudited Pro Forma Condensed Combined Statement of Operations does not purport to represent what the actual results of our operations would have been had the Merger occurred on the respective dates assumed, nor is it indicative of the future results of the consolidated company. The Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019 does not reflect any cost savings, operating synergies or revenue

enhancements that the combined company may achieve as a result of the Merger. The pro forma adjustments reflected in the accompanying Unaudited Pro Forma Condensed Combined Statement of Operations reflect estimates and assumptions made by our management that we believe to be reasonable.

The Unaudited Pro Forma Condensed Combined Statement of Operations should be read in conjunction with the information contained in "Risk Factors," "Cautionary Statement Regarding Forward-Looking Statements," "Selected Consolidated Financial Data of Mereo," "Business," and our consolidated financial statements included elsewhere in this prospectus.

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2018

	Historical financial information		Pro forma adjustment				
	Mereo	OncoMed	IFRS Reclassification and Conversion		Other		Pro forma condensed combined statement of operations
Collaboration and other revenue	—	**33,243**	—		—		**33,243**
Research and development expenses	**(22,704)**	**(25,776)**	(693)	A	—		**(48,285)**
			888	B	—		
General and administrative expenses	**(12,505)**	**(13,599)**	(693)	A	2,433	C	**(23,476)**
			888	B	—		
Restructuring charges	—	**(1,385)**	1,385	A	—		—
Operating loss	**(35,209)**	**(7,517)**	1,775		2,433		**(38,518)**
Finance charge	**(2,361)**	**—**	—		—		**(2,361)**
Finance income	**307**	**1,169**	—		—		**1,476**
Net foreign exchange gain/(loss)	**(44)**	**—**	—		—		**(44)**
Net loss before tax:	**(37,307)**	**(6,348)**	1,775		2,433		**(39,447)**
Taxation	**5,277**	**286**	—		—		**5,563**
Loss attributable to equity holders of Mereo:	**(32,030)**	**(6,062)**	1,775		2,433		**(33,884)**
Basic and diluted loss per share	**(0.45)**	**—**	—		—		**(0.35)**
Shares used to compute net loss per ordinary share, basic and diluted	**71,144,786**	—	—		24,783,320	E	**95,928,106**

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS FOR THE PERIOD ENDED JUNE 30, 2019

	Historical financial information		Pro forma adjustment				
	Mereo	OncoMed	IFRS Reclassification and Conversion		Other		Pro forma condensed combined statement of operations
Collaboration and other revenue	**—**	**3,288**	—		—		**3,288**
Research and development expenses	**(11,918)**	**(3,829)**	(687)	B	—		**(16,434)**
			(1,852)	B	1,852	B	
General and administrative expenses	**(9,107)**	**(7,576)**	(687)	B	2,645	C	**(10,827)**
			(1,852)	B	3,898	C	
	—	—	—		1,852	B	—
Operating loss	**(21,025)**	**(8,117)**	(5,078)		10,247		**(23,973)**
Gain on bargain purchase adjustment	**3,680**	**—**	—		(3,680)	D	**—**
Finance charge	**(1,454)**	**(499)**	—		—		**(1,953)**
Finance income	**137**	**253**	—		—		**390**
Net foreign exchange gain / (loss)	**(20)**	**—**	—		—		**(20)**
Net loss before tax:	**(18,682)**	**(8,363)**	(5,078)		6,567		**(25,556)**
Taxation	**2,459**	**(14)**	—		—		**2,445**
Loss attributable to equity holders of Mereo:	**(16,223)**	**(8,377)**	(5,078)		6,567		**(23,111)**
Basic and diluted loss per share	**(0.22)**	—	—		—		**(0.24)**
Shares used to compute net loss per ordinary share, basic and diluted	**71,337,074**	—	**—**		24,783,320	E	**96,120,394**

Notes to the Unaudited Pro Forma Condensed Combined Statement of Operations

1. Basis of presentation

The Unaudited Pro Forma Condensed Combined Statement of Operations are based on Mereo's and OncoMed's historical financial information as adjusted to give effect to the Merger, which will be accounted for under the acquisition method of accounting, and the alignment of OncoMed's accounting policies to those of Mereo, the accounting acquirer. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2018 and interim period ended June 30, 2019 give effect to the Merger as if it had occurred on January 1, 2018.

2. OncoMed's financial information—Currency Adjustment

The consolidated financial statements of OncoMed were presented in U.S. dollars. For purposes of preparing the Unaudited Pro Forma Condensed Combined Statement of Operations, the consolidated financial statements were translated from U.S. dollars to pound sterling, Mereo's presentation currency, using the following exchange rates for the periods below, calculated from data obtained from the United States Federal Reserve.

- Average Exchange Rate from January 1, 2018 to December 31, 2018 1.3363
- Average Exchange Rate from January 1, 2019 to June 30, 2019 1.2941

3. OncoMed financial information—U.S. GAAP to IFRS Adjustment and Reclassifications

The consolidated financial statements of OncoMed were prepared in accordance with U.S. GAAP. For the purposes of the Unaudited Pro Forma Condensed Combined Statement of Operations, certain adjustments have been made to convert the financial information of OncoMed from U.S. GAAP to IFRS as issued by the IASB ("IFRS Reclassification and Conversion Adjustments").

On January 1, 2019 OncoMed adopted ASC 842 (Leases). The nature and effect from the adoption of ASC 842 (Leases) within the historic financial information of OncoMed, as presented in the Unaudited Pro Forma Condensed Combined Statement of Operations, was a depreciation charge for the right-of-use asset within general and administrative expenditure of £0.4 million and a finance charge on the lease liability of £0.5 million. OncoMed's lease portfolio is a single-leased premise, for which no IFRS Reclassification and Conversion Adjustment is required under IFRS 16 (Leases).

Pro forma adjustments

A summary of the pro forma adjustments recognized within the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019 are presented below, with reference by letter key:

	Year ended December 31, 2018	*Interim period ended June 30, 2019*
A	Restructuring provision OncoMed recorded restructuring costs for the year ended December 31, 2018 as a single line in its statement of operations, however, to align to the functional presentation of Mereo's statement of operations, an adjustment has been made to reclassify OncoMed's £1.4 million total expense from "Restructuring charges" to "Research and development expenses" and "General and administrative expenses" of £0.7 million and £0.7 million, respectively.	Restructuring provision For the interim period ended June 30, 2019, OncoMed restructuring costs were presented within "Research and development expenses" and "General and administrative expenses", with no reclassification adjustment required.
B	Share-based payment awards OncoMed issued a number of share-based payment awards with graded vesting features that contain only a service condition. As permitted under U.S. GAAP, OncoMed made an accounting policy election to record compensation expense for these awards on a straight-line basis over the entire vesting term of the grant, however, IFRS as issued by the IASB requires that compensation expense be recorded to reflect the vesting as it occurs for each tranche/instalment within the grant over the vesting period of that tranche/instalment. As a result, and due to the number of cancellations and forfeitures of the share-based payment awards during the year ended December 31, 2018 for which expense was reversed, the amount of expense recorded under IFRS as issued by the IASB is lower. Accordingly, a reduction of £0.9 million of expense has been reflected in "Research and development expenses" and a reduction of £0.9 million of expense has been reflected in "General and administrative expenses" in the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018.	Share-based payment awards Immediately prior to the closing of the Merger with OncoMed on April 23, 2019, all share-based payment awards were cancelled. The cancellation was a result of the Merger and was only effected because the Merger occurred. Therefore, the impact of the cancellation is directly attributable to the Merger and is deemed non-recurring. IFRS Reclassification and Conversion Adjustments therefore include: ▪ An amount of £1.4 million recognized (£0.7 million within "Research and development expenses" and the remaining £0.7 million within "General and administrative expenses") relating to a share-based payment charge under IFRS 2 for the period within the interim period ended June 30, 2019 prior to the cancellation date on April 23, 2019; and ▪ An amount of £3.7 million recognized (£1.85 million within "Research and development expenses" and the remaining £1.85 million within "General and administrative expenses") relating to the cancellation of the share-based payment awards on April 23, 2019 and the resultant acceleration charge from the immediate vesting required under IFRS 2. The £3.7 million recognized relating to the cancellation of the share-based payment awards on April 23, 2019 is a non-recurring charge that is directly attributable to the

	Year ended December 31, 2018	*Interim period ended June 30, 2019*
		Merger. Therefore, the charge is an adjusting item within the Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019. of Operations as the charge is non-recurring and directly attributable to the Merger.
C	Transaction costs £2.4 million has been eliminated from “General and administrative expenses” within the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 which represents non-recurring transactions costs incurred in relation to the Merger.	Transaction costs £6.5 million has been eliminated from “General and administrative expenses” within the Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019 which represents non-recurring transactions costs incurred in relation to the Merger.
D	Gain on bargain purchase Not recognized in the year ended December 31, 2018 as the transaction closed in 2019.	Gain on bargain purchase Upon the closing of the Merger of OncoMed, a gain on bargain purchase of £3.7 million was recognized. As this is a non-recurring gain that is directly attributable to the Merger, the gain is an adjusting item within the Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019.
E	Weighted average shares Represents the increase in the weighted average shares in connection with the issuance of 24,783,320 ordinary shares on April 23, 2019 to finance the acquisition. For the purposes of the pro forma disclosure, the shares issued to finance the acquisition are assumed to have been issued from the start of the period presented (i.e. January 1, 2018).	Weighted average shares Represents the increase in the weighted average shares in connection with the issuance of 24,783,320 ordinary shares on April 23, 2019 to finance the acquisition. For the purposes of the pro forma disclosure, the shares issued to finance the acquisition are assumed to have been issued from the start of the period presented (i.e. January 1, 2019).

SELECTED CONSOLIDATED FINANCIAL DATA OF MEREO

You should read the following selected consolidated financial data together with the audited consolidated financial statements, the unaudited interim consolidated financial statements and the sections titled “Unaudited Pro Forma Condensed Combined Financial Information” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” We have derived the consolidated statement of comprehensive loss data for the years ended December 31, 2018, 2017 and 2016 and the consolidated balance sheet data as of December 31, 2018 and 2017 from our audited consolidated financial statements included elsewhere in this prospectus. Consolidated balance sheet data as of December 31, 2016 is derived from other consolidated financial statements not included in this prospectus. We have derived the unaudited consolidated statement of comprehensive loss data for the six-month periods ended June 30, 2019 and 2018 and the unaudited consolidated balance sheet data as of June 30, 2019 from our unaudited interim consolidated financial statements included elsewhere in this prospectus, which have been prepared in accordance with IAS 34 as issued by the IASB. Our historical results are not necessarily indicative of the results that should be expected for any future period.

We maintain our books and records in pounds sterling, and we prepare our financial statements in accordance with IFRS as issued by the IASB. We report our financial results in pounds sterling. For the convenience of the reader, we have translated pound sterling amounts in the tables below into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on June 28, 2019, which was £1.00 to $1.2704. These translations should not be considered representations that any such amounts have been, could have been or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

	Year Ended December 31,						Six months ended June 30,			
	2016		2017		2018		2018		2019	
	(£)	($)	(£)	($)	(£)	($)	(£)	($)	(£)	($)
	(in thousands, except per ordinary share data)								(unaudited)	
Consolidated Statement of Comprehensive Loss Data:										
Research and development expenses	(24,563)	(31,204)	(34,607)	(43,964)	(22,704)	(28,843)	(10,864)	(13,802)	(11,918)	(15,141)
General and administrative expenses	(11,617)	(14,758)	(10,697)	(13,590)	(12,505)	(15,886)	(7,102)	(9,022)	(6,462)	(8,209)
Operating loss	(36,180)	(45,962)	(45,304)	(57,554)	(35,209)	(44,729)	(17,966)	(22,824)	(18,380)	(23,350)
Net income recognized on acquisition of subsidiary	—	—	—	—	—	—	—	—	1,035	1,315
Finance income	375	476	827	1,050	307	390	151	192	137	174
Finance charge	(180)	(228)	(1,090)	(1,385)	(2,361)	(2,999)	(1,587)	(2,016)	(1,454)	(1,847)
Net foreign exchange gain/(loss)	2,263	2,874	(1,384)	(1,759)	(44)	(56)	49	63	(20)	(26)
Net loss before tax	(33,722)	(42,840)	(46,951)	(59,648)	(37,307)	(47,394)	(19,353)	(24,585)	(18,682)	(23,734)
Taxation	5,331	6,773	8,152	10,357	5,278	6,704	2,365	3,004	2,459	3,123
Loss attributable to equity holders of Mereo	(28,391)	(36,067)	(38,799)	(49,291)	(32,029)	(40,690)	(16,988)	(21,581)	(16,223)	(20,611)
Fair value changes on investments held at fair value through OCI	—	—	—	—	—	—	—	—	88	112
Currency translation of foreign operations	—	—	—	—	—	—	—	—	711	903
Total comprehensive loss attributable to equity holders of Mereo	(28,391)	(36,067)	(38,799)	(49,291)	(32,029)	(40,690)	(16,988)	(21,581)	(15,424)	(19,596)
Basic and diluted loss per ordinary share	(0.63)	(0.80)	(0.56)	(0.71)	(0.45)	(0.57)	(0.24)	(0.30)	(0.22)	(0.28)

	As of December 31,						As of June 30,	
	2016		2017		2018		2019	
	(£)	($)	(£)	($)	(£)	($)	(£)	($)
	(in thousands)						(unaudited)	
Consolidated Balance Sheet Data:								
Cash and short-term deposits and short-term investments	53,578	68,065	52,545	63,577	27,541	34,989	36,118	45,884
Total assets	86,765	110,226	96,335	122,385	67,276	85,468	107,141	136,112
Issued capital	193	245	213	271	214	272	294	373
Share premium	99,975	127,009	118,227	150,196	118,492	150,532	121,684	154,588
Accumulated loss	(40,579)	(51,552)	(79,316)	(100,763)	(111,221)	(141,295)	(127,356)	(161,794)
Total equity	79,257	100,688	62,483	79,379	32,771	41,632	59,031	74,994
Total liabilities	7,508(1)	9,538	33,852(2)	43,006	34,505(3)	43,836	48,110	61,119
Total equity and liabilities	86,765	110,226	96,335	122,385	67,276	85,468	107,141	136,113

(1) Includes £3.1 million ($3.9 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

(2) Includes £2.0 million ($2.5 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

(3) Includes £2.0 million ($2.5 million) aggregate principal amount of, and accrued interest on, the Novartis Notes. See “Related Party Transactions—Other Transactions with Novartis—Novartis Notes.”

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the information in "Selected Consolidated Financial Data of Mereo," the audited consolidated financial statements, the unaudited interim consolidated financial statements and the section titled "Unaudited Pro Forma Condensed Combined Financial Information." The following discussion is based on our financial information prepared in accordance with IFRS as issued by the IASB (and, in particular, our unaudited interim consolidated financial statements have been prepared in accordance with IAS 34 as issued by the IASB), which may differ in material respects from generally accepted accounting principles in other jurisdictions, including generally accepted accounting principles in the United States. The following discussion includes forward-looking statements that involve risks, uncertainties, and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those described under "Risk Factors" and elsewhere in this prospectus.

Our financial statements are presented in pounds sterling.

Overview

We are a biopharmaceutical company focused on the development and commercialization of innovative therapeutics that aim to improve outcomes for patients with rare diseases. Our strategy is to build a portfolio of rare disease product candidates acquired from pharmaceutical and large biotechnology companies and to develop these through regulatory approval and subsequent commercialization.

Our existing portfolio consists of five clinical-stage product candidates. Our rare and orphan disease product candidates, setrusumab for the treatment of OI and alvelestat for the treatment of severe AATD, represent an attractive development and commercialization opportunity for us. Each of our rare disease product candidates has generated positive clinical data for its target indication or for a related indication.

We plan to partner or sell our existing non-rare disease product candidates, which include acumapimod for the treatment of AECOPD, leflutrozole for the treatment of HH in obese men and etigilimab for the treatment of solid tumors, recognizing the need for a larger sales infrastructure and greater resources to take these product candidates to market.

Our strategy is to selectively acquire product candidates for rare diseases that have already received significant investment from pharmaceutical and large biotechnology companies and that have substantial pre-clinical, clinical, and manufacturing data packages, with a focus on rare bone, endocrine, and respiratory diseases. Since our formation in March 2015, we have successfully executed on this strategy by acquiring our five clinical-stage product candidates, four of which were acquired from large pharmaceutical companies and one of which we recently acquired in the Merger. We also acquired a second clinical-stage product candidate in the Merger, which we have out-licensed to a third party. We aim to efficiently develop our product candidates through clinical development, and have commenced or completed large, randomized Phase 2 clinical trials for four of our product candidates.

We do not have any approved product candidates and, as a result, have not generated any revenue from product sales. Our ability to generate revenue sufficient to achieve profitability will depend on our successful development and eventual commercialization of our rare disease product candidates, if approved, and our ability to complete partnering deals in respect of our non-rare disease product candidates. Since our inception, we have incurred significant operating losses. We had net losses of £16.2 million in the six months ended June 30, 2019 (£17.0 million in the six months ended

June 30, 2018), and £32.0 million, £38.8 million and £28.4 million, in the years ended December 31, 2018, 2017 and 2016, respectively. As of June 30, 2019, we had an accumulated net loss of £127.4 million (£111.2 million as of December 31, 2018).

We expect to continue to incur significant expenses and operating losses for the foreseeable future as we advance the clinical and manufacturing development of our rare disease product candidates and seek regulatory approval. If approved, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales, and distribution.

For our non-rare disease product candidates, including etigilimab (which we acquired from OncoMed), we expect to incur further costs in respect of completing development programs, further regulatory and scientific advice and, if approved, manufacturing, as well as costs associated with seeking suitable partnerships or negotiating possible sales.

We also expect to incur expenses in connection with the in-license or acquisition of additional product candidates and the potential clinical development of any such product candidates.

Furthermore, we became a U.S. public company listed on the Nasdaq upon closing of the Merger. We expect to incur additional costs associated with operating as a newly public company in the U.S. listed on the Nasdaq in addition to operating as a U.K. public company traded on AIM, including significant legal, accounting, investor relations, and other expenses that we did not previously incur prior to the Merger. Following the Merger, whilst OncoMed had significantly restructured its cost base ahead of the Merger, we expect to incur additional costs in relation to OncoMed, including operating costs relating to the Redwood City site.

As a result of these anticipated expenditures, we will need additional financing to support our continuing operations. Until such time as we can generate significant revenue from product sales or other commercialization revenues, if ever, in respect of our rare disease product candidates or through partnering deals in the case of our non-rare disease product candidates, we will seek to finance our operations through a combination of public or private equity or debt financings or other sources. We may also seek to sell or out-license one or more of our non-rare disease product candidates. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy and to continue as a going concern. We will need to generate significant revenue to achieve profitability, and we may never do so.

We were incorporated in March 2015 and are headquartered in London, United Kingdom. Since April 24, 2019, our ADSs have traded on Nasdaq under the symbol “MREO” and since June 9, 2016, our shares have traded on AIM under the symbol “MPH.” Since our formation through December 31, 2019, we have raised a total of £102.9 million in gross proceeds from private and public placements of our ordinary shares to institutional investors, £0.3 million from a placement of our ordinary shares to retail investors and exercised share options, $50.8 million from cash and short-term investments acquired in the Merger and £3.5 million from the issuance of the Novartis Notes (part of which were converted into ordinary shares in April 2017, and the remainder of which were converted into ordinary shares in June 2019). In August 2017, we also entered into a credit facility in the amount of £20.0 million which was fully drawn as at June 30, 2019 and December 31, 2018. As at June 30, 2019 our aggregate cash, short-term deposits and short-term investments were £36.1 million.

We are organized into a single segment following management’s view of the business as a single portfolio of product candidates. Research and development expenses are monitored at a product level; however, decisions over resource allocation are made at an overall portfolio level. Our financing is managed and monitored on a consolidated basis.

Asset Purchase Agreements with Novartis

In July 2015, three of our wholly-owned subsidiaries, Mereo BioPharma 3 Limited, Mereo BioPharma 2 Limited, and Mereo BioPharma 1 Limited (the "Subsidiaries"), entered into asset purchase agreements (the "Purchase Agreements"), to acquire from Novartis rights to setrusumab, acumapimod, and leflutrozole (the "Compounds"), respectively, and certain related assets (together with the Compounds, the "Novartis Assets").

In connection with the acquisition of the Novartis Assets, we issued 3,849,000 of our ordinary shares to Novartis pursuant to a subscription agreement. See "Related Party Transactions— Subscription Agreement." In addition, we paid Novartis $1.5 million for a payment made by Novartis to a third party in full satisfaction of all monetary obligations of Novartis to such third party with respect to acumapimod. Under the Purchase Agreements, we have agreed to make tiered royalty payments to Novartis based on annual worldwide net sales of product candidates that include the Compounds (the "Acquired Novartis Product Candidates"), at percentages ranging from the high single digits to low double digits. In the event that the parties agree or it is otherwise determined in accordance with the Purchase Agreements that we require third-party intellectual property rights to exploit the Acquired Novartis Product Candidates, we are entitled to offset a specified percentage of amounts paid to such third parties in consideration for such intellectual property rights against the royalties due to Novartis. The royalty payments are payable for a period of ten years after the first commercial sale of an Acquired Novartis Product.

We further agreed that in the event of a change in control that involves the transfer, license, assignment, or lease of all or substantially all of a Subsidiary's assets, including a Compound and related assets, we will pay Novartis a percentage of the proceeds of such transaction, with the majority of the proceeds being retained by us. No payment, however, is required with respect to any transaction of Mereo BioPharma Group plc involving its equity interests, a merger or consolidation of it, or a sale of any of its assets.

We also entered into a sublicense agreement with Novartis (the "Sublicense Agreement"), pursuant to which Novartis granted us an exclusive, worldwide, royalty-bearing sublicense for certain therapeutic antibody product candidates directed against sclerostin (the "Antibody Product Candidates"), including setrusumab. Under the Sublicense Agreement, we have agreed to pay Novartis royalties in the low single digits on worldwide net sales of Antibody Product Candidates. We have also agreed to pay Novartis up to $3.25 million in development and regulatory milestones, and to use commercially reasonable efforts to develop and commercialize an Antibody Product Candidate.

See "Business—Material Agreements—Novartis Agreements" for additional information on the agreements entered into with Novartis.

License Agreement with AstraZeneca

In October 2017, our wholly-owned subsidiary Mereo BioPharma 4 Limited entered into an exclusive license and option agreement (the "License Agreement"), to obtain from AstraZeneca an exclusive worldwide, sub-licensable license under AstraZeneca's intellectual property rights relating to certain product candidates containing a NE inhibitor, including product candidates that contain alvelestat, with an option to acquire such intellectual property rights, following commencement of a pivotal trial and payment of related milestone payments (the "Option"), together with the acquisition of certain related assets.

Upon entering into the License Agreement, we made an upfront payment of $3.0 million to AstraZeneca in cash and issued 490,798 new ordinary shares for an aggregate upfront payment equal to $5.0 million. In connection with certain development and regulatory milestones, we have agreed to

make payments of up to $115.5 million in the aggregate and issue additional ordinary shares to AstraZeneca for licensed product candidates containing alvelestat. In addition, we have agreed to make payments to AstraZeneca based on specified commercial milestones of the product candidate. In the event that we sub-license alvelestat, we have also agreed to pay a specified percentage of sublicensing revenue to AstraZeneca. Otherwise, we have agreed to make royalty payments to AstraZeneca equal to ascending specified percentages of tiered annual worldwide net sales by us or our affiliates of licensed product candidates (subject to certain reductions), ranging from the high single digits to low double digits.

See “Business—Material Agreements—AstraZeneca Agreement” for additional information.

Licensing agreement with Oncologie

On January 13, 2020, we entered into a global license agreement with Oncologie for the development and commercialization of Navi, an anti-DLL4/VEGF bispecific antibody currently being evaluated in an ongoing Phase 1b study in combination with paclitaxel in patients with advanced heavily pretreated ovarian cancer, which we acquired in connection with the Merger.

See “Business—Material Agreements—Licensing Agreement for Navicixizumab” for additional information.

Merger Agreement with OncoMed

On April 23, 2019 we closed the Merger, pursuant to which an indirect, wholly-owned subsidiary of ours was merged with and into OncoMed, with OncoMed continuing as the surviving corporation in the Merger and our indirect, wholly-owned subsidiary. Upon the closing of the Merger, we issued 24,783,320 ordinary shares and OncoMed stockholders received, in exchange for each share of OncoMed common stock owned immediately prior to the Merger: (1) 0.127694 ADSs, each representing five of our ordinary shares, and (2) one contingent value right per OncoMed stockholder, each representing the right to receive contingent consideration upon the achievement of certain milestones relating to certain OncoMed product candidates. Immediately following the effective time of the Merger, former OncoMed stockholders owned 25.8% of our issued share capital on an undiluted basis. In connection with the Merger, we also entered into certain agreements for the benefit of former OncoMed stockholders. See “Business—Material Agreements—CVR Agreement Between Us and Computershare.”

The combination of our biopharmaceutical portfolio of four product candidates with OncoMed’s lead product candidate has created a diversified combined portfolio, resulting in an increased number of potential near-term catalysts while our core focus remains on our strategy to develop and commercialize product candidates for rare diseases. In addition, the cash position of the combined company provided us with extended operational possibilities, with the potential for additional opportunities to arise by way of partnering deals with respect to our non-orphan product candidates and OncoMed’s etigilimab product candidate. Finally our Nasdaq listing, obtained in connection with the Merger, in addition to our existing AIM trading, provides a diversified international shareholder base for us following the Merger.

The closing of the Merger on April 23, 2019 affects the comparability of our financial condition and results of operations as of and for the financial periods discussed in this prospectus. In particular, our consolidated statement of comprehensive loss for the six months ended June 30, 2019 includes the results of OncoMed for over two months on a fully consolidated basis (compared to no months in the six months ended June 30, 2018). In addition, unless otherwise noted, the discussion and analysis contained below on our operations as of and for the year ended December 31, 2018, exclude the impact of the acquisition of OncoMed. The unaudited pro forma condensed combined financial

information included elsewhere in this prospectus gives effect to the Merger as if it had occurred on January 1, 2018.

The Merger qualified as a business combination (as defined in IFRS 3) in our unaudited interim consolidated financial statements for the six months ended June 30, 2019, included elsewhere in this prospectus. Accordingly, in this section we refer to the Merger as a merger and as an acquisition interchangeably.

For a discussion of the risks relating to the Merger, see “Risk Factors—Risks Related to the Merger.”

Financial Operations Overview

Revenue

We do not currently have any approved product candidates. Accordingly, we have not generated any revenue and do not expect to do so unless we obtain regulatory approval and commercialize any of our product candidates or until we receive revenues from collaborations with third parties, neither of which may occur.

Research and Development Expenses

Research and development expenses include:

- employee-related expenses, such as salaries, share-based compensation, and other benefits, for our research and development personnel;
- costs for production of drug substance and drug product and development of our manufacturing processes by CMOs;
- fees and other costs paid to CROs, consultants, and other suppliers to conduct our clinical trials and pre-clinical and non-clinical studies; and
- costs of facilities, materials, and equipment related to drug production and our clinical trials and pre-clinical and non-clinical studies.

Our direct research and development expenses are allocated on a product-by-product basis. We allocate employee-related expenses for our research and development personnel and other related expenses to specific product candidate development programs.

Product candidates in a later stage of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later stage clinical trials as well as preparation for potential specific post-authorization evidence generation that might be demanded by regulatory authorities. We expect that our research and development expense will increase substantially as we continue to advance the clinical development of our product candidates, including through our ongoing Phase 2b clinical trial of setrusumab in adults and our planned pivotal trial of setrusumab in children, and our ongoing Phase 2 proof-of-concept trial for alvelestat; hire additional clinical, scientific, and commercial personnel; and acquire or in-license future product candidates and technologies. As a result, we expect our research and development expenses will increase for the foreseeable future.

The successful development, approval, and commercialization of our product candidates is highly uncertain. At this time, we cannot reasonably estimate the nature, timing, and estimated costs of the efforts that will be necessary to complete the development of, or the period, if any, in which material net cash inflows may commence from any of our product candidates.

Our future expenditure on developing our product candidates is therefore highly uncertain. This is due to numerous risks and uncertainties associated with developing our product candidates, including the uncertainty of:

- the scope, rate of progress, and expense of our research and development activities;
- the progress and results of our clinical trials and our pre-clinical and non-clinical studies;
- the terms and timing of regulatory approvals, if any;
- establishment of arrangements with our third-party manufacturers to obtain manufacturing supply;
- protection of our rights in our intellectual property portfolio;
- launch of commercial sales of any of our product candidates, if approved, whether alone or in collaboration with others;
- third party strategic relationships for clinical development and/or commercialization of our non-rare product candidates and performance of our strategic partners under these arrangements;
- the sale, if any, of one or more of our non-rare disease product candidates;
- acceptance of any of our product candidates, if approved, by patients, the medical community and payors at our desired pricing levels;
- competition with other therapies; and
- continued acceptable safety profile of any of our product candidates following approval.

Any of these variables with respect to the development of our product candidates or any other future candidate that we may develop could result in a significant change in the costs and timing associated with their development. For example, if the FDA, the EMA, or another regulatory authority were to require us to conduct pre-clinical studies and clinical trials beyond those we currently anticipate will be required for the completion of clinical development or if we experience significant delays in enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of our clinical development programs. We may never succeed in obtaining regulatory approval for any of our product candidates.

General and Administrative Expenses

Our general and administrative expenses principally consist of salaries and related benefits, including share-based compensation, for personnel in our executive, finance and other administrative functions. Other general and administrative costs include facility-related costs and professional services fees for auditing, tax and general legal services, as well as expenses associated with the Merger with OncoMed, our requirements of being a public company quoted on AIM and listed on Nasdaq and costs incurred relating to the issue of equity to the extent not capitalized, including the costs associated with the cancelled offering of our ADSs and ordinary shares in early 2018.

We expect that our general and administrative costs will increase in the future as our business expands and we increase our headcount to support the planned growth in our operating activities. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses. In addition, we expect to continue to grant share-based compensation awards to existing and future key management personnel and other employees. Additionally, we anticipate increased costs associated with being a U.S. public company, including expenses related to services associated with maintaining compliance with Nasdaq rules and SEC requirements, director compensation, insurance, and investor relation costs. If any of our product candidates that we intend to directly commercialize or co-commercialize obtains regulatory approval, we expect that we will incur expenses associated with building a sales and marketing team.

Finance Income

Finance income consists of interest earned on our short-term cash deposits.

Finance Charge

Finance charge consists of interest on the Novartis Notes (part of which were converted into ordinary shares in April 2017, and the remainder of which were converted into ordinary shares in June 2019), interest on our credit facility, losses on short-term cash deposits and finance charges on lease liabilities following the adoption of IFRS 16 (Leases) on January 1, 2019. For further information on the terms of the Novartis Notes and our credit facility see "—Liquidity and Capital Resources—Indebtedness."

Net Foreign Exchange Gain/(Loss)

Our functional currency is pound sterling. We initially record transactions in foreign currencies at the rate ruling on the date the transaction first qualifies for recognition. Net foreign exchange gain/(loss) consists of the difference arising on settlement or translation of our foreign currencies, which are primarily held in U.S. dollars.

Taxation

As a U.K. resident trading entity, we are subject to U.K. corporate taxation. Due to the nature of our business, we have generated losses since formation. As at December 31, 2018 and 2017, we had cumulative carryforward tax losses of £50.6 million and £36.0 million, respectively. Our cumulative carryforward tax losses are expected to increase throughout 2019. Subject to any relevant restrictions, we expect these to be available to carry forward and offset against future operating profits. As a company that carries out extensive research and development ("R&D") activities, we benefit from the U.K. R&D small or medium-sized enterprise tax credit regime and are able to surrender some of our trading losses that arise from our research and development activities for a cash rebate of up to 33.35% of eligible R&D expenditure. Qualifying expenditures largely comprise employment costs for research staff, subcontracted CRO and CMO costs, consumables and certain internal overhead costs incurred as part of research projects. Certain subcontracted qualifying research expenditures are eligible for a cash rebate of up to 21.67%. We may not be able to continue to claim payable R&D tax credits in the future because we may no longer qualify as a small or medium-sized company.

In the event we generate revenues in the future, we may benefit from the U.K. "patent box" regime that allows profits attributable to revenues from patents or patented product candidates to be taxed at an effective rate of 10%. This relief applies to profits earned from April 1, 2013. When taken in combination with the enhanced relief available on our R&D expenditures, we expect a long-term lower rate of corporation tax to apply to us. If, however, there are unexpected adverse changes to the U.K. R&D tax credit regime or the "patent box" regime, or for any reason we are unable to qualify for such advantageous tax legislation, or we are unable to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments, our business, results of operations, and financial condition may be adversely affected.

At December 31, 2018, OncoMed had federal net operating loss carryforwards related to the 2018 tax year, amounting to $39.1 million which carryforward indefinitely and $228.6 million, which relate to prior taxable years, that begin to expire in 2023. At December 31, 2018, OncoMed had state net operating loss carryforwards of $97.2 million, which begin to expire in 2028, if not utilized. At December 31, 2018, OncoMed also had federal and California research and development credit carryforwards aggregating approximately $25.4 million and $19.8 million, respectively. The federal credits will expire in 2025, if not utilized. California research and development credits have no expiration date. At December 31, 2018, OncoMed also had federal orphan drug credit and Alternative Minimum Tax ("AMT") carryforwards of approximately $39.3 million and $1.5 million, respectively. The federal orphan

drug credits will begin to expire in 2034, if not utilized. A U.S. federal tax refund in respect of the AMT carryforward of approximately $1.3 million was subsequently received in August 2019, following closing of the Merger.

Results of Operations

The following table sets forth our results of operations for the years ended December 31, 2018, 2017 and 2016 and for the six months ended June 30, 2019 and 2018.

	Year Ended December 31,			Six months ended June 30,	
	2016	2017	2018	2018	2019
	(in thousands of pounds)			(unaudited)	
Research and development expenses	(24,563)	(34,607)	(22,704)	(10,864)	(11,918)
General and administrative expenses	(11,617)	(10,697)	(12,505)	(7,102)	(6,462)
Operating loss	(36,180)	(45,304)	(35,209)	(17,966)	(18,380)
Net income recognized on acquisition of subsidiary	—	—	—	—	1,035
Finance income	375	827	307	151	137
Finance charge	(180)	(1,090)	(2,361)	(1,587)	(1,454)
Net foreign exchange gain/(loss)	2,263	(1,384)	(44)	49	(20)
Net loss before tax	(33,722)	(46,951)	(37,307)	(19,353)	(18,682)
Taxation	5,331	8,152	5,278	2,365	2,459
Loss attributable to equity holders of Mereo	(28,391)	(38,799)	(32,029)	(16,988)	(16,223)
Fair value changes on investments held at fair value through OCI	—	—	—	—	88
Currency translation of foreign operations	—	—	—	—	711
Total comprehensive loss attributable to equity holders of Mereo	(28,391)	(38,799)	(32,029)	(16,988)	(15,424)

Comparison of the Six Months Ended June 30, 2019 and 2018

As indicated above, the comparability of our results of operations for the six months ended June 30, 2019 and 2018 has been affected by the completion of the Merger on April 23, 2019.

Research and Development Expenses

The following table sets forth our research and development expenses by product candidate development program for the six months ended June 30, 2019 and 2018.

	Six Months Ended June 30,	
	2018	2019
	(in thousands of pounds) (unaudited)	
BPS-804	3,621	6,799
MPH-966	650	1,725
BGS-649	3,515	735
BCT-197	1,492	284
Navi	—	541
Etigilimab	—	198
GITR-Fc(1)	—	239
Unallocated costs	1,586	1,397
Total research and development expenses	10,864	11,918

(1) Consists of research and development expenses incurred by OncoMed in connection with its Glucocorticoid-induced tumor necrosis factor receptor-related protein (GITR) ligand therapeutic candidate, GITRL-Fc. Development of this candidate was subsequently ceased.

Our total research and development expenses increased by £1.1 million, or 9.7%, from £10.9 million for the six months ended June 30, 2018 to £11.9 million for the six months ended June 30, 2019. This was due to the costs associated with the studies for setrusumab and alvelestat for a full period together with costs associated with the OncoMed programs in the period from the closing of the Merger in April 2019 to June 30, 2019. Total research and development expenses included payments we made to CROs and other suppliers for the ongoing clinical development of each of setrusumab and alvelestat and for the programs acquired from OncoMed.

Direct research and development expenses related to setrusumab increased by £3.2 million, from £3.6 million for the six months ended June 30, 2018 to £6.8 million in the six months ended June 30, 2019, principally due to an increase in costs relating to the manufacture of additional clinical trial supplies in 2019.

Direct research and development expenses for alvelestat increased by £1.1 million from £0.7 million for the six months ended June 30, 2018 to £1.7 million in the six months ended June 30, 2019, with 2019 reflecting a full period of costs relating to the Phase 2 study for alvelestat which commenced in 2018.

Direct research and development expenses related to leflutrozole decreased by £2.8 million, from £3.5 million for the six months ended June 30, 2018 to £0.7 million in the six months ended June 30, 2019, principally due to the completion of the Phase 2 study in early 2019.

Direct research and development expenses related to acumapimod decreased by £1.2 million, from £1.5 million for the six months ended June 30, 2018 to £0.3 million in the six months ended June 30, 2019, principally due to the completion of the study in 2018.

Direct research and development expenses related to Navi were £0.5 million in the period from the closing of the Merger in April 2019 to June 30, 2019.

Unallocated research and development expenses consisted primarily of costs related to employees and associated payroll costs, including costs related to external research and development contractors that are not specific to any of our product candidates. These costs decreased by £0.2 million, from £1.6 million for the six months ended June 30, 2018 to £1.4 million for the six months ended June 30, 2019.

General and Administrative Expenses

General and administrative expenses decreased by £0.6 million, or 9.0%, from £7.1 million for the six months ended June 30, 2018 to £6.5 million for the six months ended June 30, 2019. This decrease was primarily due to higher one-off professional fees in 2018.

Net income recognized on acquisition of subsidiary

As OncoMed was acquired for an amount less than the fair market value of the net assets acquired on the date of acquisition, a gain on bargain purchase of £3.7 million was realized (recognized net against the acquisition transaction costs within the consolidated statement of comprehensive loss). See Note 4 to our unaudited interim consolidated financial statements for the six months ended June 30, 2019, included elsewhere in this prospectus, for an explanation on the calculation of this gain. Further, £2.7 million of acquisition related transaction costs were incurred in connection with the acquisition (recognized net against the gain on bargain purchase within the consolidated statement of comprehensive income). Therefore, the net income recognized on acquisition of OncoMed amounted to £1.0 million.

Finance Income

Interest earned on our short-term cash deposits amounted to £0.1 million in the six months ended June 30, 2019 and decreased by approximately 9.0% from the interest earned in the six months ended June 30, 2018, reflecting lower balances held on deposit during the period.

Finance Charge

Finance charge decreased by £0.1 million from £1.6 million in the six months ended June 30, 2018 to £1.5 million in the six months ended June 30, 2019, as a result of lower costs related to the Novartis Notes after their full conversion into ordinary shares in June 2019.

Comparison of Years Ended December 31, 2018 and 2017

Research and Development Expenses

The following table sets forth our research and development expenses by product candidate development program for the years ended December 31, 2018 and 2017.

	Year Ended December 31,	
	2017	2018
	(in thousands of pounds)	
BPS-804	13,380	11,304
MPH-966	2	3,722
BGS-649	10,801	5,091
BCT-197	10,014	2,285
Unallocated costs	410	302
Total research and development expenses	34,607	22,704

Our total research and development expenses decreased by £11.9 million, or 34.4%, from £34.6 million in 2017 to £22.7 million in 2018. This was a result of the focus in 2018 on our two orphan product candidate development programs and the completion of two Phase 2 clinical trials for two of our product candidates, acumapimod and leflutrozole.

Total research and development expenses included payments we made to CROs and other suppliers for the ongoing clinical development of each of setrusumab and alvelestat and for completing the clinical trials of acumapimod and leflutrozole. Clinical trial costs decreased from £22.8 million in 2017 to £14.9 million in 2018. Additionally, our research and development employee-related costs decreased from £4.3 million in 2017 to £2.9 million in 2018, reflecting lower share-based payment charges in 2018 and partially offset by higher payroll expenses.

Our payments to CMOs for the provision of drug substance and drug product and associated manufacturing development to support our clinical trials and further development and scale-up activities associated with our setrusumab monoclonal antibody manufacturing development decreased from £7.3 million in 2017 to £4.2 million in 2018, reflecting higher costs related to the manufacture of clinical trial supplies for our ongoing setrusumab adults study in 2017.

Direct research and development expenses related to setrusumab decreased by £2.1 million, from £13.4 million in 2017 to £11.3 million in 2018, due to higher costs in 2017 related to the transfer of production of setrusumab from Novartis to our CMO, manufacture of clinical trial supplies in preparation for the start of the adult Phase 2b trial and a full year of clinical costs relating to this trial.

Direct research and development expenses for alvelestat increased by £3.7 million, due to the commencement of the Phase 2 study during the year.

Direct research and development expenses related to leflutrozole decreased by £5.7 million, from £10.8 million in 2017 to £5.1 million in 2018, due to the completion of the main part of the Phase 2 trial during 2018.

Direct research and development expenses related to acumapimod decreased by £7.7 million, from £10.0 million in 2017 to £2.3 million in 2018, due to the completion of the Phase 2 trial in the first half of 2018.

Unallocated research and development expenses consisted primarily of costs related to employees and associated payroll costs, including costs related to external research and development contractors that are not specific to any of our product candidates. These costs decreased by £0.1 million, from £0.4 million in 2017 to £0.3 million in 2018.

General and Administrative Expenses

General and administrative expenses increased by £1.8 million, or 16.8%, from £10.7 million in 2017 to £12.5 million in 2018. This increase was primarily due to an increase in our total professional fees, which was partially offset by a decrease in staff expenses.

Our total professional fees increased from £1.9 million in 2017 to £6.3 million in 2018. This increase was due to expenses relating to our aborted initial public offering of equity securities on Nasdaq in 2018, of which £1.0 million was held on the balance sheet as prepayments as at December 31, 2017 and released during 2018, together with the expenses associated with the Merger with OncoMed and fees in respect of a bank loan renegotiation. Total general and administrative staff expenses decreased by £2.4 million from £6.9 million in 2017 to £4.5 million in 2018 after taking account of a reduction in share-based payment charges of £3.1 million and an increase in underlying staff costs of £0.7 million.

Finance Income

Interest earned on our short-term cash deposits decreased from £0.8 million in 2017 to £0.3 million in 2018, reflecting lower balances held on deposit during the year.

Finance Charge

Finance charge increased by £1.3 million from £1.1 million in 2017 to £2.4 million in 2018, primarily reflecting a full year of interest charges on the bank loan in the year.

Net Foreign Exchange Gains/(Losses)

In 2017, net foreign exchange loss was £1.4 million, reflecting a weakening of the U.S. dollar against pound sterling during the year which negatively impacted the translation of our foreign deposits and investments at December 31, 2017. In 2018, the net foreign exchange loss was £44,000, representing the unrealized loss on translation of cash deposits held primarily in U.S. dollars at year-end, and reflecting lower exchange rate variance year-on-year on lower U.S. denominated cash balances held at the end of 2018.

Income Tax Benefit

We recorded a tax credit of £8.2 million in 2017 and £5.3 million in 2018. The tax credit represents the cash rebate from the U.K. tax authorities we qualified for in respect of eligible research and development activities undertaken in prior years. The reduction in the tax credit accrued is due to a reduction in qualifying research and development expenditure in 2018. The tax credit for 2017 was received in 2018 and we expect to receive the tax credit for 2018 in 2019.

Comparison of the Years Ended December 31, 2017 and 2016

Research and Development Expenses

The following table sets forth our research and development expenses by product candidate development program for the years ended December 31, 2017 and 2016.

	Year Ended December 31,	
	2016	2017
	(in thousands of pounds)	
BPS-804	4,804	13,380
BCT-197	9,734	10,014
BGS-649	9,432	10,801
MPH-966	—	2
Unallocated costs	593	410
Total research and development expenses	24,563	34,607

Our total research and development expenses increased by £10.0 million, or 40.9%, from £24.6 million in 2016 to £34.6 million in 2017. This was a result of increased spending on clinical development as we continued the Phase 2 programs for acumapimod and leflutrozole and commenced the adult Phase 2b program for setrusumab. Total research and development expenses included payments we made to CROs and other suppliers for the ongoing clinical development of each of setrusumab, acumapimod, and leflutrozole, which increased from £17.9 million in 2016 to £22.8 million in 2017, reflecting the inclusion of expenses relating to the adult Phase 2b study for setrusumab. Additionally, our research and development employee related costs increased from £3.1 million in 2016 to £4.1 million in 2017, reflecting increased headcount, higher other employee-related expenses, including travel, and higher bonus amounts earned in 2017. Our payments to CMOs for the provision of drug substance and drug product and associated manufacturing development to support our clinical trials and the transfer of manufacturing of drug substance and drug product from Novartis to third-party manufacturers increased from £2.9 million in 2016 to £7.3 million in 2017, reflecting ongoing manufacturing activity primarily due to the manufacture of additional clinical trial materials in respect of setrusumab.

Direct research and development expenses related to setrusumab increased by £8.6 million, from £4.8 million in 2016 to £13.4 million in 2017, due to the commencement of the adult Phase 2b study for setrusumab during 2017 and the completion of the manufacture of associated clinical trial materials.

Direct research and development expenses related to acumapimod increased by £0.3 million, from £9.7 million in 2016 to £10.0 million in 2017, due to the completion of the Phase 2 clinical trial for acumapimod in the fourth quarter of 2017, which trial commenced in the first half of 2016.

Direct research and development expenses related to leflutrozole increased by £1.4 million, from £9.4 million in 2016 to £10.8 million in 2017, due to the continuation of the Phase 2b study for leflutrozole and the commencement of the Phase 2b extension study.

General and Administrative Expenses

General and administrative expenses decreased by £0.9 million, or 7.8%, from £11.6 million in 2016 to £10.7 million in 2017. This decrease was due to a decrease in share-based payment expenses of £2.8 million, reflecting the lower level of share option awards in 2017, partially offset by a rise in other general and administrative costs of £1.9 million, reflecting an increase in payroll-related costs due to a higher headcount and higher bonus amounts earned in 2017, together with additional legal and professional fees in connection with the equity financing in April 2017, the entering into a credit facility in August 2017, and the acquisition of alvelestat in October 2017.

Finance Income

Interest earned on our short-term cash deposits increased from £0.4 million in 2016 to £0.8 million in 2017, reflecting higher cash balances held in deposit in 2017.

Finance Charge

Finance charge increased from £0.2 million in 2016 to £1.1 million in 2017, reflecting interest costs on additional borrowings under our credit facility during 2017 and lower costs related to the Novartis Notes after the exercise of a portion of these notes in April 2017. Finance charge in 2017 also included £0.3 million of losses on short term deposits.

Net Foreign Exchange Gain/(Loss)

In 2016, the net foreign exchange gain was £2.3 million, primarily as a result of the unrealized gain on translation of cash deposits held primarily in U.S. dollars at year end, reflecting a strengthening of the U.S. dollar against pounds sterling during the year. In 2017, net foreign exchange loss was £1.4 million, reflecting a weakening of the U.S. dollar against pounds sterling during the year which negatively impacted the translation of our foreign deposits and investments at December 31, 2017.

Income Tax Benefit

We recorded a tax credit of £5.3 million in 2016 and £8.2 million in 2017. The tax credit represents the cash rebate from the U.K. tax authorities we qualified for in respect of eligible research and development activities during the years. Due to the increase in qualifying research and development expenditure in 2017, the 2017 tax credit increased by £2.9 million from the 2016 tax credit. The 2016 tax credit was received in May 2017. The 2017 tax credit of £8.2 million was received in August 2018.

Liquidity and Capital Resources

Overview

Under the current business plan and cash flow forecasts, with ongoing research and development efforts focused on our rare disease product candidates, setrusumab and alvelestat, we expect that our current on-hand cash resources will extend to the end of the first half of 2020. Therefore, we will need additional external funding by the end of the first half of 2020 to be able to continue as a going concern. We expect that net proceeds raised from this offering will provide us with the additional external funding required to extend our cash runway into the first quarter of 2021. For additional information relating to our intended use of the proceeds of the offering, see “Use of Proceeds”.

Principally, the additional external funding will be used to continue funding our current clinical trials, ongoing administrative costs, other general working capital and contractual financing requirements, and other general corporate purposes. Specifically, the funding is intended to support the ongoing Phase 2b clinical trial of setrusumab in adults and enable us to commence our potentially pivotal pediatric study of setrusumab in children, as well as support the ongoing Phase 2 proof-of-concept trial for alvelestat.

We do not currently have any approved product candidates and have never generated any revenue from product sales or otherwise. As a result, to date, we have financed our operations primarily through the issuances of our equity securities and convertible debt and our credit facility, which we entered into in August 2017.

Since our formation, we have raised a total of £102.9 million in gross proceeds from private and public placements of our ordinary shares to institutional investors, £0.3 million from a placement of our ordinary shares to retail investors and exercised share options, $50.8 million from cash and short-term

investments acquired in the Merger and £3.5 million from the issuance of the Novartis Notes. In August 2017, we also entered into a credit facility in the amount of £20.0 million which was fully drawn down as at June 30, 2019 and December 31, 2018. As at June 30, 2019 our aggregate cash, short-term deposits and short-term investments were £36.1 million (£27.5 million as of December 31, 2018). In terms of potential further equity financings beyond the offering to which this prospectus relates and after taking into account the 12,252,715 ordinary shares issued to Boxer Capital in February 2020, our Board has been authorized to issue new shares on a non-preemptive basis up to a maximum aggregate nominal amount of £323,768.08.

In September 2018, we entered into a revised loan agreement which enabled us to extend the interest only period of the credit facility from September 30, 2018 to April 30, 2019. On April 23, 2019, we agreed a revision to the loan agreement which extended the interest only period of the credit facility through December 31, 2019. In connection with the credit facility, we have issued warrants in respect of an aggregate of 1,243,908 ordinary shares at a weighted average exercise price of £2.95 per ordinary share, which are capable of exercise until October 1, 2028. For additional information, see "—Indebtedness—Credit Facility".

On October 8, 2018, we entered into a funding agreement with The Alpha-1 Project, Inc. ("TAP"), which provided for funding of up to $0.4 million as a contribution towards the development of our product candidate alvelestat. On November 1, 2018, the first tranche of $0.1 million was received and as a result we issued 41,286 warrants to subscribe for our ordinary shares at an exercise price of £0.003 per share.

Cash Flows

Comparison of the Six Months Ended June 30, 2019 and 2018

The table below summarizes our cash flows for the six months ended June 30, 2019 and 2018.

	Six Months Ended June 30,	
	2018	2019
	(in thousands of pounds) (unaudited)	
Net cash from (used in) operating activities	(15,031)	(27,633)
Net cash from (used in) investing activities	107	34,009
Net cash from (used in) financing activities	(757)	(3,399)
Net increase/(decrease) in cash and cash equivalents	(15,681)	2,977

Operating Activities

Net cash used in operating activities was £27.6 million for the six months ended June 30, 2019, an increase of £12.6 million from the net cash used in operating activities of £15.0 million for the six months ended June 30, 2018. The increase in net cash used in operating activities of £12.6 million was primarily due to £9.2 million of payables acquired with the acquisition of OncoMed which was partly realized through to June 30, 2019. In addition, there was an increase in trade and other receivables of £1.4 million which mostly related to advanced prepayments required as a result of the listing on Nasdaq.

Investing Activities

Our net cash from investing activities was £34.0 million for the six months ended June 30, 2019, an increase of £33.9 million compared to net cash from investing activities of £0.1 million for the six months ended June 30, 2018. On April 23, 2019, we acquired £10.1 million of cash and cash equivalents and £29.0 million of short-term investments in the Merger. Through to June 30, 2019, £23.9 million of those short-term investments were realized as cash and cash equivalents.

Financing Activities

Net cash used in financing activities was £3.4 million for the six months ended June 30, 2019, an increase of £2.6 million from the net cash used in financing activities of £0.8 million for the six months ended June 30, 2018. The increase in net cash used in financing activities was primarily due to the purchase of treasury shares for £1.0 million, interest paid on a bank loan of £0.9 million, payment of lease liabilities of £0.8 million and transaction costs relating to the issue of shares of £0.8 million.

Prior to the adoption of IFRS 16 (Leases) as of January 1, 2019, payment of lease liabilities were presented within net cash flows from operating activities as a component of loss before tax.

Comparison of Years Ended December 31, 2018 and 2017

The table below summarizes our cash flows for the years ended December 31, 2018 and 2017.

	Year Ended December 31,	
	2017	2018
	(in thousands of pounds)	
Net cash from (used in) operating activities	(32,148)	(23,137)
Net cash from (used in) investing activities	(3,744)	252
Net cash from (used in) financing activities	33,743	(2,073)
Net decrease in cash and cash equivalents	(2,148)	(24,959)

Operating Activities

Net cash used in operating activities decreased £9.0 million, from £32.1 million in 2017 to £23.1 million in 2018. This was due to a reduction in the loss before taxation of £9.6 million, reflecting lower research and development activity. In addition, there was a decrease in payables over receivables of £0.6 million as the payables balance in 2017 unwound due to lower levels of activity in 2018 and due to timing differences on cash payments to suppliers, partially offset by an increase in research and development tax credits received of £2.8 million, reflecting higher research and development expenses in 2017 compared to 2016.

Investing Activities

Our net cash from investing activities was £0.3 million in 2018, compared to net cash used in investing activities of £3.7 million in 2017. The change was primarily due to the investment in 2017 of £2.3 million in the acquisition of a license for alvelestat from AstraZeneca and a reduction in short term investments of £2.5 million, combined with the lower interest earned (£0.3 million in 2018 compared to £1.1 million in 2017), reflecting lower average cash balances held in 2018.

Financing Activities

Our net cash from financing activities was £33.7 million in 2017, compared to net cash used in financing activities of £2.1 million in 2018. In April 2017, we raised gross proceeds of £15.0 million in a placement of ordinary shares with institutional investors, for which the cash expense associated with the financing amounted to £0.7 million. In August 2017, we borrowed the first £10.0 million tranche under our credit facility and in December 2017 we borrowed the second and final tranche under our credit facility for another £10.0 million. In addition, in 2017, we paid an aggregate of £0.3 million of interest on our outstanding borrowings under our credit facility compared to £1.6 million in 2018. Throughout 2018, we raised gross proceeds of £0.3 million from a placement of our ordinary shares with retail investors and exercised share options. In September 2018 our borrowing under our credit facility increased by £0.5 million with associated costs of £0.9 million, including a £0.7 million modification loss in respect of the revaluation of the loan under IFRS 9. In November 2018, we received the first tranche of £0.1 million under the agreement with TAP.

Comparison of Years Ended December 31, 2017 and 2016

The table below summarizes our cash flows for the periods presented.

	Year Ended December 31,	
	2016	2017
	(in thousands of pounds)	
Net cash from (used in) operating activities	(29,662)	(32,148)
Net cash from (used in) investing activities	373	(3,745)
Net cash from (used in) financing activities	68,356	33,744
Net increase (decrease) in cash and cash equivalents	39,067	(2,149)

Operating Activities

The increase in net cash used in operating activities was £2.4 million, from £29.7 million in 2016 to £32.1 million in 2017. This was largely due to the increased loss before taxation due to higher levels of research and development activity in 2017, offset in part by the increase in cash tax credit received from £0.9 million in 2016 to £5.3 million in 2017. In addition there were changes in the add-backs for non-cash expenses as follows: (i) share based payment add-backs were reduced from £6.5 million to £3.7 million, reflecting lower share based payments charge in 2017, (ii) foreign exchange add-backs increased by £3.6 million in 2017, reflecting the movement from a foreign exchange gain of £2.3 million in 2016 to a loss of £1.4 million in 2017, (iii) interest earned increased by £0.5 million in 2017 as a result of higher cash held in deposits throughout 2017 and increased interest rates, (iv) £0.3 million on interest expense on the credit facility entered into in August 2017, (v) £0.3 million of loss on short-term deposits in 2017 and (vi) working capital increased by £5.0 million in 2017, reflecting higher creditor and accrual balances at December 31, 2017 compared to 2016.

Investing Activities

Our net cash from investing activities reduced from £0.4 million in 2016 to net cash used in investing activities of £3.7 million in 2017, largely due to the £2.3 million cash cost of purchasing a license for alvelestat from AstraZeneca in October 2017 and £2.5 million of cash transferred into short-term investments held on deposit, partially offset by £1.1 million of interests received on our short-term deposits.

Financing Activities

Our net cash from financing activities reduced from £68.4 million in 2016 to £33.7 million in 2017. In June 2016, we raised gross proceeds of £56.5 million in the second tranche of a private placement entered into in 2015. In June 2016, in connection with our ordinary shares being admitted to trading on the AIM, we raised gross proceeds of £11.4 million in private placements of our ordinary shares with institutional investors. In addition, and as part of that transaction, we raised £3.5 million gross proceeds in the form of the Novartis Notes (part of which were converted into ordinary shares in April 2017, and the remainder of which were converted into ordinary shares in June 2019). Our total costs in respect of the foregoing transactions were £3.0 million. In April 2017, we raised gross proceeds of £15.0 million in a placement of our ordinary shares with institutional investors, for which the cash cost amounted to £0.7 million. In August 2017, we borrowed the first £10.0 million tranche under our credit facility and in December 2017 we borrowed the second and final tranche under our credit facility for another £10.0 million. In addition, in 2017, we paid an aggregate of £0.3 million of interest on our outstanding borrowings under our credit facility.

Operating and Capital Expenditure Requirements

As of June 30, 2019 we had an accumulated loss of £127.4 million. We expect to continue to incur significant operating losses for the foreseeable future as we continue our research and development

efforts and seek to obtain regulatory approval of our product candidates and any future product we develop. See also “Risk Factors—Risks Related to Our Business and Industry—If we do not obtain adequate and timely funding, we may not be able to continue as a going concern”.

We expect our expenses to increase substantially in connection with our ongoing development activities related to our product candidates. In addition, as a result of the Merger, we expect to incur additional costs associated with operating as a U.S. public company listed on Nasdaq in addition to operating as a U.K. public company traded on AIM.

We anticipate that our expenses will increase substantially due to the costs associated with our current and planned clinical trials, our outsourced manufacturing activities and other associated costs including the management of our intellectual property portfolio. These costs will increase further if we:

- seek to develop additional product candidates;
- seek regulatory approvals for any of our product candidates that successfully completes clinical trials;
- potentially establish a sales, marketing, and distribution infrastructure and scale-up manufacturing capabilities to commercialize or co-commercialize any product candidates for which we may obtain regulatory approval and chose to commercialize directly;
- expand our intellectual property portfolio;
- add further central clinical, scientific, operational, financial and management information systems, and personnel, including personnel to support our development and to support our operations as a U.S. public company listed on Nasdaq; and
- experience any delays or encounter any issues from any of the above, including but not limited to failed studies, complex results, safety issues, or other regulatory challenges.

We expect that our existing cash, short-term deposits and short-term investments (before the offering to which this prospectus relates) will enable us to fund our currently committed clinical trials and operating expenses and capital expenditure requirements until the end of the first half of 2020. We have based these estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of our product candidates and any future product candidates and because the extent to which we may enter into collaborations with third parties for development of any of our product candidates is unknown, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates. Our future capital requirements will depend on many factors, including:

- the costs, timing, and results of our ongoing Phase 2b clinical trial and our planned pivotal pediatric study for setrusumab and our ongoing Phase 2 proof-of-concept clinical trial for alvelestat;
- the costs and timing of manufacturing clinical supplies of our product candidates;
- the costs, timing, and outcome of regulatory review of our product candidates, including post-marketing studies that could be required by regulatory authorities;
- the costs, timing, and outcome of potential future commercialization activities, including manufacturing, marketing, sales and distribution, for our product candidates that we commercialize directly;
- the timing and amount of revenue, if any, received from commercial sales of our product candidates;
- the costs and timing of preparing, filing, and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims,

including any claims by third parties that we are infringing, misappropriating or otherwise violating their intellectual property rights;
- the sales price and availability of adequate third-party coverage and reimbursement for our product candidates;
- the effect of competitors and market developments;
- the extent to which we are able to acquire new product candidates or enter into licensing or collaboration arrangements for our product candidates, although we currently have no commitments or agreements to complete any such transactions; and
- milestone and deferred payments under our license and option agreement with AstraZeneca.

Our revenues, if any, will be derived from sales of any product candidates that we are able to successfully develop, receive regulatory approval for, and commercialize in future years. In the meantime, we will need to obtain substantial additional funds to achieve our business objective.

Adequate additional funds may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a shareholder. Any future debt financing or preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute your ownership interests.

If we raised additional funds through collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate our product development programs or any future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Indebtedness

Credit Facility

On August 7, 2017, we entered into a loan agreement (the “Original Loan Agreement”), with Silicon Valley Bank and Kreos Capital V (UK) Limited, which provided for total borrowings of £20.0 million. Under the Original Loan Agreement, we borrowed £10.0 million on each of August 21, 2017 and December 29, 2017 for general working capital purposes. We were obligated to make interest-only payments on the loan amount until September 30, 2018, and thereafter we were obligated to pay interest and principal in 30 equal monthly installments until March 31, 2021. The loan bore interest at an annual fixed rate equal to 9.0%.

In connection with the borrowings under the Original Loan Agreement, in 2017, we issued to the lenders warrants to subscribe for an aggregate of 363,156 of our ordinary shares at an exercise price of £3.029 per ordinary share and warrants to subscribe for an aggregate of 333,334 of our ordinary shares at an exercise price of £3.30 per ordinary share pursuant to a warrant instrument dated August 21, 2017.

On September 28, 2018, we, Silicon Valley Bank and Kreos Capital V (UK) Limited entered into a new loan agreement (the “New Loan Agreement”), which replaced the Original Loan Agreement in its entirety and (i) increased the total commitments of the lenders to £20,455,000, (ii) extended the interest-only period from September 30, 2018 to April 30, 2019, and (iii) reduced the interest rate from 9.0% to 8.5%. Under the New Loan Agreement, both the interest-only period and the maturity date

may be further extended subject to the achievement by us of certain conditions set forth in the New Loan Agreement. The New Loan Agreement is secured by substantially all of our assets, including intellectual property rights owned or controlled by us and the shares of our subsidiaries, with all dividends and all other rights deriving from them. It is also secured by all policies and contracts of insurance issued or entered into for our benefit, and all rights, claims and interests which we may have from time to time in any such policy or contract.

In connection with the New Loan Agreement, in 2018 we issued warrants giving the lenders the right to subscribe for 225,974 ordinary shares at an exercise price of £2.31 per ordinary share pursuant to a warrant instrument dated October 1, 2018. These warrants will be capable of exercise until October 1, 2028.

In addition, the New Loan Agreement requires us to seek consent from Kreos if the Company intends to undertake any (i) dispositions, (ii) changes in business, ownership, management or business locations; (iii) mergers or acquisitions; (iv) creation of indebtedness; (v) commitment of guarantees; (vi) creation of a lien on the amount borrowed under the loan or on certain of our intellectual property, or assignment thereof; (vii) distributions or payment of cash dividends; or (viii) transactions with our affiliates, subject to certain exceptions. In all cases, failure to seek such consent would result in default under the New Loan Agreement.

On April 23, 2019, we agreed on a revision to the New Loan Agreement, which extended the interest-only period to December 31, 2019. Thereafter, we will have to pay interest and principal monthly installments until March 31, 2021. In connection with the revised New Loan Agreement and following the closing of the Merger, on May 3, 2019, we issued warrants giving the lenders the right to subscribe for 321,444 shares at an exercise price of £2.95 per share. These warrants will be capable of exercise until October 1, 2028.

The warrants include an adjustment provision to prevent the dilution of the ordinary shares issuable to Silicon Valley Bank and Kreos under certain circumstances.

Novartis Notes

On June 3, 2016, as part of the fundraising for our product development programs and for general corporate purposes and in connection with our ordinary shares being admitted to trading on AIM, we issued 3,463,563 unsecured convertible loan notes to Novartis (the “Novartis Notes”), for aggregate proceeds of £3,463,563. The Novartis Notes bore interest at 4% per annum payable annually and accruing daily and ranked senior to any other unsecured obligations. Novartis had the right to convert all or some of the Novartis Notes, together with accrued interest, at any time into our ordinary shares at a conversion price of £2.21 per ordinary share as long as, following such conversion, Novartis held no more than 19.5% of the aggregate voting rights of our company. In addition, upon conversion, Novartis was entitled to receive an additional number of our ordinary shares equal to the number of shares into which such Novartis Notes and accrued interest were converted multiplied by 0.93 (the “Bonus Shares”). At December 31, 2016, Novartis was entitled to receive up to 1,453,520 Bonus Shares.

On April 6, 2017, Novartis delivered to us a notice of conversion with respect to £1,398,552 aggregate principal amount of Novartis Notes. Pursuant to such notice, on April 26, 2017, £1,398,552 aggregate principal amount of Novartis Notes was converted into 632,829 fully paid ordinary shares. Additionally, in connection with such conversion, we issued 588,532 Bonus Shares to Novartis. At December 31, 2018, Novartis was entitled to receive up to 864,998 Bonus Shares.

On June 6, 2019 Novartis delivered to us a notice of conversion with respect to the aggregate principal amount and interest of the Novartis Notes. Pursuant to such notice, on June 21, 2019 the aggregate principal amount and interest of £2,367,004 due under the Novartis Notes was converted

into 1,071,042 fully paid ordinary shares at the fixed conversion price of £2.21 per share. Additionally, in connection with such conversion, we issued 864,988 Bonus Shares to Novartis. At June 30, 2019 there was no further liability under the Novartis Notes which were converted in full as at that date.

Contractual Obligations and Commitments

The table below summarizes our contractual obligations at December 31, 2018.

	Payments Due by Period				
	Up to 1 year	1-3 Years	3-5 Years	Over 5 Years	Total
	(in thousands of pounds) (unaudited)				
Novartis Notes(1)	82	2,162	—	—	2,327
Bank loan(2)	8,260	15,589	—	—	23,849
Operating lease(3)	332	204	—	—	536
Total	8,674	17,955	—	—	26,712

(1) Includes interest. See "—Liquidity and Capital Resources—Indebtedness—Novartis Notes."

(2) Includes interest. See "—Liquidity and Capital Resources—Indebtedness—Credit Facility."

(3) Reflects payments due for our office lease under a lease agreement that expires in August 2025. We may terminate this agreement in August 2020 and, as such, no amounts due under the agreement after August 2020 are reflected.

As further described above under "—Asset Purchase Agreements with Novartis" and "—License Agreement with AstraZeneca," under various agreements with Novartis and AstraZeneca, we have agreed to make milestone payments and pay royalties. We have not included any deferred payment obligations, such as milestones or royalties, in the table above, as the amount, timing, and likelihood of such payments are not known and will remain uncertain for the foreseeable future.

In addition, we enter into contracts in the ordinary course of business with CROs, CMOs, and other vendors to assist in the performance of our research and development activities and other services and product candidates for operating purposes. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not included in the table of contractual obligations and commitments.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to a variety of financial risks. Our overall risk management program seeks to minimize potential adverse effects of these financial risks on our financial performance.

Interest Rate Risk

We manage interest rate risk by monitoring short and medium-term interest rates and placing cash on deposit for periods that optimize the amount of interest earned while maintaining access to sufficient funds to meet day-to-day cash requirements. We have a committed borrowing facility in an amount of £20.5 million which was fully drawn as of the date of this prospectus. Loans under the credit facility bear interest at a fixed rate of 9.0% per annum. Consequently, there is no material exposure to interest rate risk in respect of interest payable.

Credit Risk

We consider all of our material counterparties to be creditworthy. We consider the credit risk for each of our major counterparties to be low. We are, however, dependent on a number of third parties for the delivery of our programs and, in addition, where appropriate we pay upfront deposits and fees in advance of the delivery of services where required. We continue to assess credit risk as part of our management of these third-party relationships.

Liquidity Risk

We manage our liquidity risk by maintaining adequate cash reserves at banking facilities and invested in short term money market accounts, and by continuously monitoring our cash forecasts, our actual cash flows and by matching the maturity profiles of financial assets and liabilities.

Foreign Currency Risk

Foreign currency risk reflects the risk that the value of a financial commitment or recognized asset or liability will fluctuate due to changes in foreign currency rates. The majority of our operating costs are denominated in pounds sterling, euros, and U.S. dollars. Our financial position, as expressed in pounds sterling, is exposed to movements in foreign exchange rates against the U.S. dollar and the euro. Our main trading currencies are pounds sterling and U.S. dollars. We are exposed to foreign currency risk as a result of operating transactions and the translation of foreign currency bank accounts and short-term deposits. We monitor our exposure to foreign exchange risk. We have not entered into foreign exchange contracts to hedge against foreign exchange fluctuations but maintain cash and investments in U.S. dollars to cover anticipated forward commitments. For the six months ended June 30, 2019, we recorded a net foreign exchange loss of £20,127, compared to a gain of £49,305 for the six months ended June 30, 2018, primarily as a result of operating expenses payable in U.S. dollars.

Critical Accounting Judgments and Estimates

Our financial statements have been prepared in accordance with IFRS as issued by the IASB. In the application of our accounting policies, we are required to make judgments, estimates, and assumptions about the value of assets and liabilities for which there is no definitive third-party reference. The estimates and associated assumptions are based on historical experience and other factors that we considered to be relevant. Actual results may differ from these estimates. We review our estimates and assumptions on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revisions and future periods if the revision affects both current and future periods.

The following are our critical judgments and estimates that we have made in the process of applying our accounting policies and that have the most significant effect on the amounts recognized in our consolidated financial statements included elsewhere in this prospectus.

Measurement of Share-Based Compensation

Through June 30, 2019, we granted share options and awards under the following six equity award plans: (i) the Mereo BioPharma Group Limited Share Option Scheme (the “2015 Plan”); (ii) the Mereo

BioPharma Group plc Share Option Scheme (the "Share Option Plan"); (iii) the Mereo BioPharma Group plc Long Term Incentive Plan ("LTIP"); (iv) the DBSP; (v) the Mereo 2019 Equity Incentive Plan (the "2019 EIP") and (vi) the Mereo 2019 NED Equity Incentive Plan (the "2019 NED EIP").

We measure share options at fair value at their grant date in accordance with IFRS 2, "Share- based Payment." We calculate the fair value of the share options using either the Black-Scholes model, or for options with performance conditions, a simulation model. We charge the fair value to the statement of comprehensive income over the expected vesting period.

2015 Plan

Under the 2015 Plan, we granted share options to our employees, including our senior executives, and our non-executive directors. For all employees, share options vest over four years with 25% vesting 12 months after the vesting start date and the balance vesting equally over the next 36 months. For non-executive directors, share options vest over three years in three equal annual installments. There have been no performance conditions attached to the share options granted under the 2015 Plan. Certain rules apply for accelerated vesting and exercise of share options in the event of an offer for the company.

We measure the share options under the 2015 Plan at fair value at their grant date in accordance with IFRS 2, "Share-based Payment," using the Black-Scholes model. The exercise price of the share options under the 2015 Plan is in the range of £1.29 to £2.21 per ordinary share and the share options were granted between September 2015 and May 2016 with an exercise period of 10 years from the date of grant.

Other inputs to determine the fair value included:

Volatility(1)	56%
Risk-free rate	1.48 to 2.07%
Expected dividends	£nil

(1) Measured by reference to a basket of similar companies trading on AIM.

Since there is no historical data in relation to the expected life of the share options, the contractual life of the options was used in calculating the expense for the year. Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective year equal to the expected life of the share options.

Share Option Plan

Under the Share Option Plan, we have granted 1,981,188 share options to executive officers and other employees and 99,633 options had lapsed as of December 31, 2018. The weighted-average remaining contractual life for the share options outstanding as of December 31, 2018 and December 31, 2017 was 8.6 years and 9.4 years, respectively. The weighted-average fair value of options granted during the year ended December 31, 2018 and the year ended December 31, 2017 was £2.29 and £1.85 per share, respectively. Share options outstanding as of December 31, 2018 had an exercise price of between £2.76 and £3.23 per share and as of December 31, 2017, between £3.03 and £3.23 per share.

The weighted-average inputs to the models used for the fair value of share options were as follows:

	Year ended December 31	
	2017	2018
Expected volatility (%)	49-51	65-67
Risk-free interest rate (%)	1.06-1.33	1.39-1.53
Expected life of share options (years)	10	10
Market price of ordinary shares (£)	3.03-3.23	2.76-3.25
Model used	Black Scholes	Black Scholes

Since there is no historical data in relation to the expected life of the share options, the contractual life of the options was used in calculating the expense for the year. Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective year equal to the expected life of the share options.

Long-Term Incentive Plan

Under the LTIP, share options were granted to executive officers on June 9, 2016 and April 4, 2017. 75% of these share options have specific performance conditions and vest up to 33.3% on June 9, 2019 (Tranche 1), 33.3% on June 9, 2020 (Tranche 2) and 33.3% on June 9, 2021 (Tranche 3) depending on achieving share price increases relative to the share price at January 1, 2019, January 1, 2020 and January 1, 2021 relative to the share price at admission to AIM. The share options were granted at a weighted-average fair value of £1.34 per ordinary share and have an exercise price of £nil. Other inputs used to determine the fair value of the strategic element of the LTIP share options were:

	Tranche 1	Tranche 2	Tranche 3
Volatility	48.9%	48.9%	48.9%
Risk-free rate	0.48%	0.61%	0.74%
Expected dividends	£nil	£nil	£nil

We measure the fair value of the share price element of the LTIP share options at their grant date in accordance with IFRS 2, “Share-based Payment,” using a Monte Carlo simulation model. Share options have an exercise period of one year from vesting date.

25% of the LTIP share options are subject to strategic targets and share options vest three years from the date of grant. As stated above, LTIP share options were granted at a weighted-average fair value of £1.34 per ordinary share and have an exercise price of £nil. We measure the fair value of the strategic element of the LTIP share options using the Black-Scholes model.

Other inputs used to determine the fair value of LTIP share options were:

Volatility	48.9%
Risk-free rate	0.74%
Expected dividends	£nil

The fair value of the total share-based compensation is recognized as an expense over the respective vesting period. Share-based compensation expense under the LTIP was £0.3 million in 2018 and £0.3 million in 2017.

Deferred Bonus Share Plan

Under the previous terms of our DBSP, 100,817 share options were granted to executive officers on April 26, 2018 in respect of the year ended December 31, 2017. Share options have no

performance conditions, an exercise price of £nil, a normal vesting date of 3 years from grant and are exercisable within one year of vesting.

Since the DBSP awards are equity-settled, they are valued using the grant date model based on the fair value at the date of issue. Given there are no market conditions nor any non-vesting conditions, the value of the awards will be the monetary value of the shares issued at the date of issue.

The fair value of such share-based compensation is recognized as an expense over the respective vesting period. Share-based compensation expense under the DBSP for the years ended December 31, 2018 and 2017 were £nil million and £0.3 million, respectively.

We account for related social security contributions on all share options as cash-settled share-based payment transactions. We recognize a liability over the vesting period in respect of share options to be exercised. As at June 30, 2019, the provision for social security contributions on share options was £0.1 million (£0.8 million as at December 31, 2018).

On January 18, 2019 the Board approved an amendment to the terms of the DBSP and the terms were amended such that in any year, 30% of any cash bonus award to executive officers (after deduction of payroll taxes) must be used to purchase ordinary shares in Mereo within 12 months. Therefore we do not expect any further share option awards under the DBSP.

The Mereo 2019 Equity Incentive Plan

On April 4, 2019 we established the Mereo 2019 EIP. On May 20, 2019 the Remuneration Committee of the Board agreed to grant awards in respect of market value options over 255,500 ADSs to executives, at an exercise price of $5.40 per ADS. On July 23, 2019 the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 215,500 ADSs to executives, at an exercise price of $3.00 per ADS.

The Mereo 2019 NED Equity Incentive Plan

On April 4, 2019 we established the Mereo 2019 NED EIP. On May 20, 2019 the Remuneration Committee of the Board agreed to grant awards in respect of market value options over 38,500 ADSs to non-executive directors, at an exercise price of $5.40 per ADS. On July 23, 2019 the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 38,500 ADSs to non-executive directors, at an exercise price of $3.00 per ADS.

Measuring the Fair Value of Our Intangible Assets

At each year-end reporting date, we review the carrying value of our intangible assets to determine whether there is any indication that those assets have been impaired. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the income statement.

We consider the future development costs, the probability of successfully progressing each program to product approval and likely commercial returns after product approval, among other factors, when reviewing for indicators of impairment. The results of this testing did not indicate any impairment of the acquired product candidates' rights in the years ended December 31, 2018 and December 31, 2017.

The acquired development programs are assets which are not used in launched product candidates. These assets have not yet begun to be amortized but have been tested for impairment by assessing their value in use. Value-in-use calculations for each program are utilized to calculate the

recoverable amount. The calculations use pre-tax cash flow projections covering the period through product development to commercial sales up to the later of loss of patent protection or market exclusivity, which extend beyond five years from the balance sheet date; no cash flows are included after this date. Approved product candidates are assumed to be out-licensed such that we receive upfront fees, milestone payments, and royalties on sales; therefore, we do not incur any costs of commercialization after out- licensing.

Key assumptions we have used for the value-in-use calculations are described as follows:

- development costs to obtain regulatory approval—costs are estimated net of any contributions expected from collaborative arrangements with future partners. Our directors have developed cost estimates based on our previous experience and in conjunction with the expertise of our clinical development partners;
- launch dates of product candidates—these reflect our expected date of launch for product candidates based on the timeline of development programs required to obtain regulatory approval. The assumptions are based on our directors' prior experience together with the outcome of discussions with regulators;
- probability of successful development—we estimate probabilities of success for each phase of development based on industry averages and knowledge of specific programs;
- out-licensing upfront fees, milestones, and royalty rates on sales—we estimate these amounts based on prior experience and access to values from similar transactions in the industry, which are collated and accessible from specialist third-party sources;
- sales projections—these are based on our internal projections using external market data and market research commissioned by us;
- profit margins and other operational expenses—these are based on our internal projections of current product manufacturing costings, with input from manufacturing partners where applicable, and estimates of operating costs based on our prior industry experience;
- cash flow projections—for all assets, cash flows are assessed over industry-standard asset life of 20 years; and
- discount rates—the discount rate is estimated on a pre-tax basis reflecting our estimated cost of capital and is applied consistently across each of the operating segments. The cost of capital in each of 2018 and 2017 was 15.3%.

At this stage of product development, we believe the key sensitivity for all three development programs is the probability of successful completion of clinical trials in order to obtain regulatory approval for sale. Therefore, full impairment of a development program is expected should such related trials be unsuccessful and development halted.

Determining whether an intangible asset is impaired requires an estimation of whether there are any indications that its carrying value is not recoverable.

Fair Value of Warrants

In connection with the borrowings under the Original Loan Agreement, in 2017, we issued to the lenders warrants to subscribe for an aggregate of 363,156 of our ordinary shares at an exercise price of £3.029 per ordinary share and warrants to subscribe for an aggregate of 333,334 of our ordinary shares at an exercise price of £3.30 per ordinary share pursuant to a warrant instrument dated August 21, 2017.

Furthermore, in connection with the New Loan Agreement entered into on September 28, 2018, we issued 225,974 additional warrants for £nil consideration to the lenders pursuant to a warrant

instrument dated October 1, 2018, thereunder with the same key terms as the warrants issued under the Original Loan Agreement. The fair value of the additional warrants as of their grant date on September 30, 2018 was £375,343.

The New Loan Agreement has an aggregate principal amount of £20.5 million and will mature on March 1, 2021, unless extended on reaching certain milestones. A modification loss of £0.7 million was recognized in the profit and loss as of the date of entering into the New Loan Agreement.

On April 23, 2019, we agreed on a further revision to the New Loan Agreement, which extended the interest-only period to December 31, 2019. In connection with the revised New Loan Agreement and following the closing of the Merger, on May 3, 2019, we issued warrants giving the lenders the right to subscribe for 321,444 shares at an exercise price of £2.95 per share.

We measure the fair value of our warrants using the Black-Scholes model and taking into account any appropriate amendments to inputs in respect of volatility and remaining expected life of the warrants.

The weighted-average inputs to the models used for the fair value of warrants granted during the year ended December 31, 2018 and the six months ended June 30, 2019 were as follows:

	Year ended December 31, 2018	Six Months Ended June 30, 2019
Expected volatility (%)	65	66
Risk-free interest rate (%)	1.56	1.26
Expected life of share options (years) .	10.0	9.5
Market price of ordinary shares (£)	2.31	0.83
Model used	Black Scholes	Black Scholes

The fair value of the warrants at June 30, 2019 was £0.2 million. The carrying value of the loan at June 30, 2019 was £19.7 million.

Fair Value of Provision for Deferred Cash Consideration

Provision for deferred cash consideration represents the potential future cash payments in respect of the alvelestat acquisition. As this is in respect of a product which is not yet approved, this provision for deferred cash consideration includes all contingent payments up to the point of exercise of the right to acquire the intellectual property and excludes potential downstream milestones, royalties or other payments because they are unquantifiable. The provision is recognized as a liability at each balance sheet date with the amounts calculated as the risk adjusted net present value of certain future payments we may make. The payments are dependent on reaching specific milestones based on the commencement and outcome of clinical trials.

The total amount of provision for deferred cash consideration at June 30, 2019 was £2.1 million and at June 30, 2018 was £2.0 million.

Key inputs used to determine the value of the provision for deferred consideration include:

Discount rate:	15.3%
Likely payment date:	Based on the expected timing of the ongoing Phase 2 study for alvelestat
Risk adjustment:	Standard risk adjustments for orphan asset development programs

Fair Value of Deferred Equity Consideration

Deferred equity consideration is accounted for as equity-settled share-based payment transactions in accordance with IFRS 2. Fair value is determined by the share price at the date of purchase.

Deferred Tax and Current Tax Credits

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognized in the statement of operations, except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity. Current tax is the expected tax payable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years. Tax credits are accrued for the year based on calculations that conform to the U.K. research and development tax credit regime applicable to small and medium-sized companies.

We may not be able to continue to claim research and development tax credits in the future under the current research and development tax credit scheme, when we become a U.S. public company because we may no longer qualify as a small or medium-sized company. However, we may be able to file under a large-company scheme. Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax is based on the expected manner of realization or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be utilized. No deferred tax assets are recognized on our losses carried forward because there is currently no indication that we will make sufficient profits to utilize these tax losses.

Recent Accounting Pronouncements

We refer to Note 3 within our unaudited interim consolidated financial statements for the six months ended June 30, 2019, included elsewhere in this prospectus for a discussion of new standards and interpretations not yet adopted by us.

During the year ended December 31, 2018, we adopted IFRS 9 Financial Instruments (as revised in July 2014) (“IFRS 9”), and the related consequential amendments to other IFRSs. IFRS 9 introduces new requirements for (i) the classification and measurement of financial assets and financial liabilities, (ii) impairment for financial assets, (iii) general hedge accounting and (iv) new accounting for certain modifications and exchanges of financial liabilities measured at amortized cost. The only impact on us is in relation to the non-substantial modification of the convertible loan notes, as detailed below. We have applied IFRS 9 in full without restating comparatives with an initial date of application of January 1, 2018.

In relation to the non-substantial modification of financial liabilities, IFRS 9 requires the recognition of a modification gain or loss for exchanges or modifications of financial liabilities that do not result in derecognition of the financial liability. As a result, under IFRS 9 the carrying value of the convertible loan notes at the date of modification, as more fully described in in our consolidated financial statements for the year ended December 31, 2018 included elsewhere in this prospectus, was adjusted to recognize the modification gain in the retained earnings as of the date of initial application of IFRS 9 (January 1, 2018).

Interest bearing loans and borrowings—Convertible loan notes

	£
At January 1, 2018 calculated under IAS 39	1,977,393
Amounts restated through retained earnings	(123,865)
At January 1, 2018 under IFRS 9	1,853,528

On January 1, 2019, we adopted IFRS 16 (Leases) ("IFRS 16"), which requires lessees to recognize a right-of-use asset and a lease liability at the commencement of all arrangements identified as containing a lease, except for short-term and leases of low value assets. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged. Under the new guidance, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee will depend on its classification as a finance or operating leases. IFRS 16 is effective for annual and interim periods beginning on or after January 1, 2019 and early adoption is permitted if IFRS 15 Revenue from Contracts with Customers has also been applied.

Our unaudited interim consolidated financial statements for the six month period ended June 30, 2019, included elsewhere in this prospectus, applied IFRS 16 for the first time. We applied certain practical expedients afforded under IFRS 16, notably:

i) The decision not to reassess, upon transition, whether an existing contract contains a lease (grandfather the previous assessment of whether a transaction was a lease under IAS 17 or International Financial Reporting Interpretations Committee ("IFRIC")). The definition of a lease under IFRS 16 has been applied only to contracts entered into of changed on or after January 1, 2019;

ii) The decision to apply a recognition exemption for short-term leases and leases of low-value assets;

iii) The decision to use hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

As at January 1, 2019, the adoption of the standard resulted in the recognition of right-of-use ("ROU") assets and lease liabilities for operating leases of approximately £2.6 million and £2.5 million, respectively.

The acquisition of OncoMed on April 23, 2019, resulted in the recognition of an ROU asset and lease liability of £10.8 million and £10.7 million, respectively. The ROU asset relates to a single property lease in the United States.

As at June 30, 2019, the Company's total ROU assets and lease liabilities were approximately £13 million and £13.1 million, respectively.

The difference between the operating lease commitments applying IAS 17 as at December 31, 2018 and lease liabilities recognized in the consolidated statement of financial position as at January 1, 2019, the date of initial application of IFRS 16 by us, is due principally to a reassessment of the lease term upon date. The lease liabilities were discounted at a discount rate of 15.0%.

Further information related to the adoption of IFRS 16 can be found in the notes to the unaudited interim consolidated financial statements for the six month period ended June 30, 2019.

JOBS Act

In April 2012, the U.S. Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"), was enacted. We are an "emerging growth company" as defined in JOBS Act. As an emerging growth company we have chosen to take advantage of certain exemptions from various reporting requirements that are applicable to other publicly traded entities that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement

to the auditor's report providing additional information about the audit and the financial statements (i.e., an auditor discussion and analysis);

- not being required to submit certain executive compensation matters to stockholder advisory votes, such as "say-on-pay," "say-on-frequency," and "say-on-golden parachutes;" and
- not being required to disclose certain executive compensation related items such as the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to median employee compensation.

We may take advantage of these provisions until the earliest of: (i) the last day of the first fiscal year in which our annual gross revenues exceed $1.07 billion; (ii) December 31, 2024; (iii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common equity held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter; or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during any three-year period.

As a result, we do not know if some investors will find our ADSs less attractive than shares in entities that are not emerging growth companies. The result may be a less active trading market for our ADSs, and the price of our ADSs may become more volatile.

BUSINESS

Overview

We are a biopharmaceutical company focused on the development and commercialization of innovative therapeutics that aim to improve outcomes for patients with rare diseases. Our strategy is to build a portfolio of rare disease product candidates acquired from pharmaceutical and large biotechnology companies and to develop these through regulatory approval and subsequent commercialization.

Our existing portfolio consists of five clinical-stage product candidates. Our rare and orphan disease product candidates, setrusumab for the treatment of OI and alvelestat for the treatment of severe AATD, represent an attractive development and commercialization opportunity for us. Each of our rare disease product candidates has generated positive clinical data for its target indication or for a related indication.

We plan to partner or sell our existing non-rare disease product candidates, which include acumapimod for the treatment of AECOPD, leflutrozole for the treatment of HH in obese men and etigilimab for the treatment of solid tumors, recognizing the need for a larger sales infrastructure and greater resources to take these product candidates to market.

Our strategy is to selectively acquire product candidates for rare diseases that have already received significant investment from pharmaceutical and large biotechnology companies and that have substantial pre-clinical, clinical, and manufacturing data packages, with a focus on rare bone, endocrine, and respiratory diseases. Since our formation in March 2015, we have successfully executed on this strategy by acquiring our five clinical-stage product candidates, four of which were acquired from large pharmaceutical companies and one of which we recently acquired in the Merger. We also acquired a second clinical-stage product candidate in the Merger, which we have out-licensed to a third party. We aim to efficiently develop our product candidates through clinical development, and have commenced or completed large, randomized Phase 2 clinical trials for four of our product candidates.

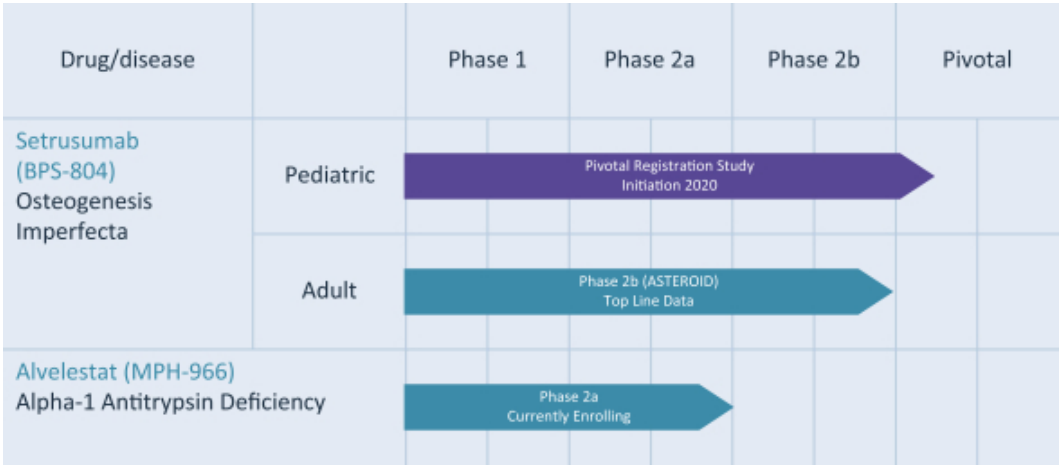
Rare (and orphan) diseases represent an attractive development and commercialization opportunity for us, since they typically have high unmet medical need and can often utilize regulatory pathways that facilitate acceleration to the potential market. Development of rare disease products generally involves close coordination with patient organizations and key opinion leaders and investigators. Patients are typically treated at a limited number of specialized sites, which helps identification of the patient population and enables a small targeted sales infrastructure to commercialize the products in key markets.

Our team has extensive experience in the pharmaceutical and biotechnology sector in the identification, acquisition, development, manufacturing, and commercialization of product candidates in multiple therapeutic areas. Our senior management team has long-standing relationships with senior executives of large pharmaceutical companies, which we believe enhances our ability to identify and acquire additional product candidates.

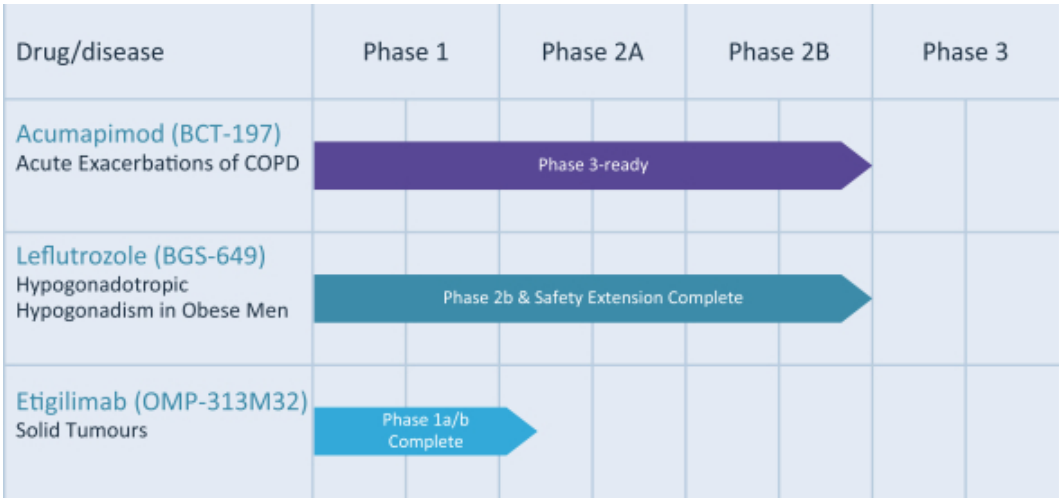
Our Pipeline

The following table summarizes our pipeline for our rare disease product candidates and non-rare disease product candidates. We have global commercial rights to setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab.

Rare Disease Product candidates Pipeline



Non-Rare Disease Product candidates Pipeline



Rare Disease Product candidates

Our portfolio consists of the following rare disease product candidates:

- **Setrusumab (BPS-804)**: Setrusumab is a novel antibody we are developing as a treatment for OI, a rare genetic disease that results in bones that can break easily and is commonly known as brittle bone disease. OI is a debilitating orphan disease for which there are no treatments approved by the FDA or EMA. It is estimated that OI affects a minimum of 20,000

people in the United States and approximately 32,000 people in Germany, Spain, France, Italy, and the United Kingdom. Setrusumab is designed to inhibit sclerostin, a protein that inhibits the activity of bone-forming cells. We believe setrusumab's mechanism of action is well suited for the treatment of OI and has the potential to become a novel treatment option for patients that could reduce fractures and improve patient quality of life.

In 2016, we obtained orphan drug designation in OI for setrusumab in the United States and the EU, in February 2017, setrusumab was accepted into the adaptive pathways program in the EU and, in November 2017, it was accepted into the Priority Medicines scheme ("PRIME") of the EMA. Prior to our acquisition of setrusumab, Novartis conducted four clinical trials in 106 patients and healthy volunteers. A Phase 2 clinical trial of setrusumab showed statistically significant improvements in bone formation biomarkers and bone mineral density. In May 2017, we initiated a Phase 2b clinical trial for setrusumab in adults in the United States, Europe and Canada. The trial is randomized with three blinded arms at high, medium and low doses to establish the dose response curve and an open label arm at the top dose. We reported top-line data on the three blinded dose ranging arms in November 2019 with the results supporting progression of setrusumab into a pediatric pivotal study in OI. See "Prospectus Summary—Recent Developments—12-month top-line data from the setrusumab Phase 2b dose-ranging study in adult patients." Following the completion of the dosing part of the study, patients will continue to be followed for a further twelve months to examine the off-effects of setrusumab. We have also agreed on a PIP for setrusumab with the EMA and intend to prepare for a pivotal trial of setrusumab in Europe and Canada in children with severe OI in 2020, with fracture rate as the primary endpoint. We believe that the results from this trial, if favorable, will be sufficient to support the submission of an MAA to the EMA for setrusumab for the treatment of children with severe OI and a CMA for the treatment of OI in adults in the EU.

The FDA approved the first sclerostin inhibitor for treatment of osteoporosis, romosozumab (Evenity), in April 2019 following an 18-1 favorable advisory committee vote. This was over a year after the FDA rejected our request for a Type C meeting to discuss the initiation of a pediatric Phase 3 study for setrusumab for the treatment of patients with severe OI. Based on these events and with our setrusumab Phase 2b efficacy and safety data in adult OI patients, we re-engaged with the FDA at the end of 2019 to discuss the expansion of the pivotal trial of setrusumab for the treatment of patients with severe OI to include sites in the United States. In February 2020, we announced the successful completion of a Type B End-of-Phase 2 meeting with the FDA to discuss the development of setrusumab for the treatment of children and adolescents with OI in the United States. See "Prospectus Summary—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA." In June 2019, the EMA's CHMP adopted a negative opinion recommending the refusal of a marketing authorization for the same sclerostin inhibitor. However, in October 2019, following a re-examination procedure, the CHMP adopted a positive opinion recommending marketing authorization for the sclerostin inhibitor. In December 2019, the European Commission approved the MAA for romosozumab (Evenity).

- **Alvelestat (MPH-966):** Alvelestat is a novel, oral small molecule we are developing for the treatment of severe AATD, a potentially life-threatening, rare, genetic condition caused by a lack of effective alpha-1 antitrypsin ("AAT"), a protein that protects the lungs from enzymatic degradation. This degradation leads to severe debilitating diseases, including early-onset pulmonary emphysema, a disease that irreversibly destroys the tissues that support lung function. There are an estimated 50,000 patients in North America and 60,000 patients in Europe with severe AATD. Alvelestat is designed to inhibit NE, a neutrophil protease, which is a key enzyme involved in the destruction of lung tissue. We believe the inhibition of NE has the potential to protect AATD patients from further lung damage.

Prior to our license of alvelestat, AstraZeneca conducted 12 clinical trials involving 1,776 subjects, including trials in bronchiectasis and CF. Although these trials were conducted in diseases other than AATD, we believe the data demonstrated potential clinical benefit and biomarker evidence of treatment effect for AATD patients. We have initiated a Phase 2 proof-of-concept clinical trial in patients with severe AATD in the United States and the EU and expect to report top-line data from this trial in mid-2020. We are also planning to evaluate the use of alvelestat to treat patients with BOS as a result of lung transplant. BOS is an orphan disease and the primary cause of death in adult lung transplant patients from one year following transplant.

Non-Rare Disease Product candidates

Our portfolio consists of the following non-rare disease product candidates:

- **Acumapimod (BCT-197):** Acumapimod is a p38 MAP kinase inhibitor we are developing as an oral first-line acute therapy for patients with AECOPD. COPD is a non-fully-reversible, progressive lung disease in which inflammation plays a central role. There are an estimated 16 million people in the United States diagnosed with COPD. Of all hospital admissions in the United States related to COPD, approximately 63% are for AECOPD patients. We believe acumapimod offers a potential new treatment for controlling inflammation by targeting pathways that drive the pathological mechanism behind AECOPD.

  Since there are currently no approved therapies in the United States or the EU to treat AECOPD, we believe that there is significant medical need for a drug which is disease-modifying. We believe acumapimod could potentially prevent AECOPD instead of just treating the symptoms and has the potential to improve quality of life, slow the progression of the disease, and significantly reduce direct healthcare costs.

  Prior to our acquisition of acumapimod, Novartis conducted five clinical trials in 459 patients and healthy volunteers, including a Phase 2a trial in AECOPD patients that showed a clinically meaningful improvement in lung function at all doses and a statistically significant improvement in lung function at the highest dose.

  We conducted a Phase 2 dose-ranging clinical trial for acumapimod in 282 patients with AECOPD to explore two different dosing regimens on top of standard of care, which included steroids, antibiotics, and bronchodilators. Both dosing regimens showed a statistically significant change in FEV1 from baseline to Day 7, meeting the trial's primary endpoint on an intent-to-treat patient population basis. In addition, dose-dependent, statistically significant reductions in hsCRP and fibrinogen were shown with treatment with acumapimod, with hsCRP remaining suppressed through the 26-week observation period. Treatment with acumapimod also showed a statistically significant reduction in the number of COPD exacerbations that required hospitalization. Consistent with these results, there was a significant reduction in the use of corticosteroid and antibiotics in the follow-up portion of the study. In addition, acumapimod was reported to be safe and well tolerated. Based on these results, we intend to explore strategic options with third parties for the further development of acumapimod.

  In addition, in April 2019, we announced a successful end of Phase 2 meeting with the FDA regarding acumapimod. In the meeting, we and the FDA agreed on a development plan for acumapimod. In September 2019, we had a positive SAWP meeting with the EMA.
- **Leflutrozole (BGS-649):** Leflutrozole is a once-weekly oral therapy we are developing for the treatment of HH in obese men. HH is a clinical syndrome that results from inadequate levels of testosterone. Based on WHO estimates and scientific data, we estimate there are approximately seven million cases of HH in obese men in the United States. In these men, a decline in testosterone is exacerbated by high levels of the aromatase enzyme, which is present in fat tissue and leads to a reduction in testosterone. Leflutrozole is designed to inhibit the aromatase enzyme and is being developed to restore normal levels of testosterone without

causing excessively high testosterone levels or reducing the levels of LH or FSH. Both LH and FSH play key roles in sperm formation and LH plays a key role in endogenous testosterone formation. In contrast to current therapies for HH, which involve the exogenous administration of testosterone and lead to further down regulation of LH and FSH, we believe that leflutrozole, by preserving sperm formation through LH and FSH production, may present a benefit to patients.

Prior to our acquisition of leflutrozole, Novartis conducted seven clinical trials in 131 patients and healthy volunteers, including a Phase 2 proof-of-concept trial for HH in obese men in which leflutrozole normalized testosterone levels in all patients and demonstrated an increase in LH and FSH levels.

In March 2018, we reported top-line data from our completed Phase 2b dose-ranging clinical trial of leflutrozole for the treatment of HH in obese men. The trial enrolled 271 patients who were administered placebo or one of three doses of leflutrozole. The trial met our primary endpoint of normalizing testosterone levels in at least 75% of subjects after 24 weeks of treatment and all of the secondary endpoints, including normalizing testosterone in at least 90% of patients after 24 weeks of treatment at the two highest doses and improvement in LH and FSH levels at all three doses. Leflutrozole was reported to be well-tolerated in the trial. A subset of 143 patients entered into a six-month safety extension study, with 88 patients completing the additional six months of treatment. The safety extension study was designed to examine if leflutrozole resulted in a pre-specified reduction in bone mineral density at 48 weeks following the initial 24 weeks treatment. In December 2018, we reported positive results from the safety extension study for leflutrozole. The study was successful in demonstrating that none of the doses of leflutrozole met the lower bound (95% confidence interval) of the pre-specified safety criterion of a greater than 3% reduction in lumbar spine bone mineral density after 48 weeks of treatment. In addition, there was no shift into clinical categories of osteopenia or osteoporosis, with no evidence of development of new osteopenia. The efficacy end points of testosterone, LH and FSH also showed improvements consistent with the main Phase 2b study. Following the positive result of the safety extension study for leflutrozole, we convened an advisory board meeting and concluded that the future development of leflutrozole should focus on male infertility. We intend to explore strategic options with third parties for the further development of leflutrozole.

- **Etigilimab (OMP-313M32)**: Etigilimab is an anti-TIGIT therapeutic candidate intended to activate the immune system through multiple mechanisms and enable anti-tumor activity. TIGIT (T-cell immunoreceptor with Ig and ITIM domains) is an inhibitory receptor that is thought to stop T-cells from attacking tumor cells. We acquired this therapeutic product candidate in the Merger. A Phase 1a/b clinical trial enrolled patients with advanced solid tumors into either a Phase 1a single-agent portion (dose escalation in all patients and expansion in selected tumor types) or Phase 1b combination portion in selected tumor types with nivolumab (dose escalation). 23 patients were treated in the Phase 1a dose escalation portion of the study with doses up to 20mg/kg every two weeks and 10 patients were treated in the Phase 1b combination portion of the study at doses up to 20 mg/kg every two weeks in combination with nivolumab. Tumor types in the Phase 1a portion of the study were colorectal cancer (6 patients), endometrial cancer (4 patients), head & neck cancer (4 patients), pancreatic cancer (2 patients), triple negative breast cancer (2 patients) and five other tumor types and those included in the Phase 1b portion of the study included gastric cancer (3 patients) and seven other tumor types. No dose limiting toxicities were observed in the Phase 1a or 1b portions of the study and the recommended Phase 2 dose was the top dose of 20mg/kg biweekly. The only treatment-related adverse event in the Phase 1a portion of the study with an incidence rate greater than 20% was rash (39%), and the most common treatment-related adverse events in the Phase 1b portion of the study were rash (40%), fatigue (30%) and pruritus (20%). There was only one treatment-related serious adverse event in the

Phase 1a portion (autoimmune hepatitis) and there were no treatment-related serious adverse events in the Phase 1b portion of the study. None of the patients in the Phase 1a portion had a response and 30% had stable disease. Ten percent of the patients in the Phase 1b portion had a response and 10% had stable disease. The study has now completed enrollment and a CSR is being drafted.

The TIGIT program was previously subject to an exclusive license option with Celgene as part of the Collaboration Agreement. See "—Material Agreements—Collaboration Agreement with Celgene." In June 2019, we announced that Celgene had notified OncoMed that Celgene had decided, in light of strategic product portfolio considerations, not to exercise its option to license etigilimab. The Collaboration Agreement was terminated with respect to etigilimab effective on October 11, 2019. As a result, we have worldwide rights to the etigilimab program. See "—Material Agreements—Novartis Agreements" and "—Material Agreements—AstraZeneca Agreement" for important information regarding our license agreements with Novartis and AstraZeneca.

Our Strategy

We intend to become a leading biopharmaceutical company developing innovative therapeutics that aim to improve outcomes for patients with rare bone, respiratory and endocrine diseases. The key elements of our strategy to achieve this goal include:

- ***Rapidly develop and directly commercialize our rare disease product candidates***. We have completed and announced top-line data on a Phase 2b clinical trial of setrusumab for the treatment of OI in adults in the United States, Europe and Canada. We reported top-line data on the three blinded dose ranging arms in November 2019 with the results supporting progression of setrusumab into a pediatric pivotal study in OI. Following the completion of the dosing part of the study, patients will continue to be followed for a further twelve months to examine the off-effects of setrusumab. We have agreed on a PIP for setrusumab with the EMA and following our post Phase 2 meeting with the FDA in February 2020 (see "Prospectus Summary—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA"), we intend to prepare for a pivotal trial in the United States, EU and Canada in children with severe OI in 2020, with fracture as the primary end point. We believe the results from this trial, if favorable, will be sufficient to support the submission of a BLA in the United States and MAA in the EU for setrusumab for the treatment of children with severe OI and a CMA for the treatment of adults with OI.

  We have commenced a Phase 2 proof-of-concept clinical trial of alvelestat for the treatment of severe AATD and expect to report top-line data from this trial in mid-2020. If the results are favorable and pending regulatory feedback, we intend to continue to develop alvelestat toward approval and commercialization. For setrusumab and alvelestat, if approved, and for any future product candidates for rare diseases, we intend either to establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize, or co-commercialize, these product candidates in major markets or potentially to outsource aspects of these functions to third parties or partners.
- ***Efficiently advance our non-rare disease product candidates and explore strategic relationships with third parties for further clinical development and/or commercialization or strategic sales or out-licensing***. Based on the results from our Phase 2 clinical trial of acumapimod, we plan to enter into one or more strategic relationships with third parties for acumapimod to undertake the next phase of clinical development and, if approved, commercialization. In March 2018, we reported top-line Phase 2b data for leflutrozole for the treatment of HH and in December 2018, we reported positive results from the safety extension study for leflutrozole. We intend to explore strategic relationships with third parties for the further development and commercialization of leflutrozole. In addition, we

plan to enter into strategic relationships with third parties for the further development of etigilimab, which we acquired in the Merger. Alternatively, we may seek to sell or out-license one or more of our non-rare disease product candidates.

- ***Leverage our expertise in business development to expand our pipeline of product candidates***. Our senior management team has extensive relationships with large pharmaceutical and biotechnology companies. We intend to leverage these relationships to grow our pipeline with a focus on rare bone, endocrine, and respiratory diseases. We intend to continue to identify, acquire, develop, and ultimately commercialize novel product candidates that have received significant investment from large pharmaceutical companies. We will continue to focus on acquiring product candidates with either proof-of-concept clinical data in our target indication or with clinical data in a related disease and a strong scientific rationale that supports development in our target indication. Using a disciplined approach, we intend to continue building a diverse portfolio of product candidates that we believe have compelling market potential, robust pre-clinical, clinical, and manufacturing data packages, and a clear regulatory pathway.
- ***Continue to be a partner of choice for large pharmaceutical and biotechnology companies***. We believe that we are a preferred partner for large pharmaceutical and biotechnology companies as they seek to unlock the potential in their development pipelines and deliver therapeutics to patients in areas of high unmet medical need. We have strong relationships with these companies, as evidenced by our agreements with Novartis and AstraZeneca, as well as by the Merger, and a track record of structuring transactions that enable us to leverage our core capabilities while creating value for all stakeholders. We intend to continue to enter into strategic relationships that align our interests with those of pharmaceutical and large biotechnology companies and that we believe to be mutually beneficial.

Setrusumab (BPS-804) for the Treatment of Osteogenesis Imperfecta

Overview

We are developing setrusumab for the treatment of OI. Setrusumab is a novel, intravenously administered antibody that is designed to inhibit sclerostin, a protein that inhibits the activity of bone-forming cells, known as osteoblasts. We believe that by blocking sclerostin, setrusumab has the potential to induce or increase osteoblast function and maturation of these cells, increasing overall bone mass and thereby reducing fractures in OI patients.

Background of Osteogenesis Imperfecta

OI is a genetic disorder characterized by fragile bones and reduced bone mass, resulting in bones that break easily, loose joints and weakened teeth. In severe cases, patients may experience hundreds of fractures in a lifetime. In addition, people with OI often suffer from muscle weakness, early hearing loss, fatigue, curved bones, scoliosis (curved spine), brittle teeth, respiratory problems and short stature. The disease can be extremely debilitating and even fatal in newborn infants with a severe form of the disease. OI is a rare condition that affects a minimum of 20,000 people, an incidence rate of 6.2 out of 100,000, in the United States, according to estimates by the Osteogenesis Imperfecta Foundation, and approximately 32,000 people, an incidence rate of 10 out of 100,000, in Germany, Spain, France, Italy, and the United Kingdom, according to estimates by Orphanet. OI occurs across the globe without any currently described discernable higher prevalence in one population specifically.

There are eight recognized forms of OI, designated type I through type VIII. Type I is the least severe form, although it still has a significant impact on patients' lives, including fractures and other physical manifestations, while type II is the most severe and frequently causes death at or shortly after birth. The most prevalent form of OI is type I, which is estimated to occur in approximately 50% to 60%

of OI patients. The less severe forms of OI, such as type I and type IV, are still serious conditions and are characterized by broken bones, often as a result of minor trauma. Patients typically have a blue or gray tint to the sclera, the part of the eye that is usually white, and there is a risk of early hearing loss in adults.

The most severe forms of OI, particularly type II, may be characterized by an extremely small, fragile rib cage, and underdeveloped lungs. Infants with these abnormalities have life-threatening problems related to breathing and often die shortly after birth.

Current Treatment Landscape for Osteogenesis Imperfecta

There are no therapies approved by the FDA or EMA for the treatment of OI. The only treatments available to OI patients are the acute management of fractures as they occur and drugs such as bisphosphonates, which are not approved for this indication but are commonly used off-label in children.

Current treatment of OI is directed towards management of fractures with casting or surgical fixation. Following either of these, physical therapy will often be required. Preventative surgeries, such as intramedullary, or in-bone, nailing fixation are also undertaken. Supportive care for the disease involves surgery to correct deformities, internal splinting of bones with metal rods, bracing to support weak limbs and decrease pain, physical therapy, and muscle strengthening and aerobic conditioning to improve bone mass and strength.

Some OI patients are treated off-label with drugs indicated for osteoporosis. Bisphosphonate drugs slow down the rate at which osteoclasts, which are cells which resorb or take away bone, reduce the bones' mass. These include Aredia (pamidronate), Fosamax (alendronate) and Reclast (zoledronic acid). However, bisphosphonate drugs are not approved by the FDA or the EMA for use in OI. We are not aware of any long-term clinical studies demonstrating an improvement in fractures in adults and the effect of long-term therapy with these drugs remains unclear. Therefore, we believe the effect of bisphosphonate drugs on fractures, growth, bone deformity, mobility, and pain remains unclear in both adults and children.

Our Approach

Our product for treating OI is setrusumab, a fully human monoclonal antibody that is designed to inhibit sclerostin. Sclerostin is produced in osteocytes, which are mature bone cells that are thought to be the mechanoreceptor cells that regulate the activity of bone-building osteoblasts and bone-resorbing osteoclasts. Sclerostin inhibits the activity of osteoblasts. We believe that by blocking sclerostin, setrusumab has the potential to induce or increase osteoblast activity and maturation of these cells, increasing overall bone mass and, thereby reducing fractures in OI patients.

Clinical Development of Setrusumab

The following table summarizes the historical, current and planned clinical trials of setrusumab:

Historical Trials			Current Trials			Planned Trials			
Phase	Population	Subjects Treated with Setrusumab	Phase	Population	Enrollment	Phase	Population	Planned Enrollment	Target Start
Phase 1	Healthy Volunteers (postmenopausal women)	30	Phase 2b	OI (adult)	112	Phase 3	OI (pediatrics)	~160	Phase 3 ready in EU
Phase 2	Hypophosphatasia	8							
Phase 2	Women with Low Bone Mineral Density	36							
Phase 2	OI	9							

Phase 1 and Phase 2 Clinical Trials in Other Indications

Novartis performed a Phase 1 single ascending dose trial in 30 healthy female volunteers. A range of doses of setrusumab were administered and were shown to be well tolerated. A Phase 2 ascending dose trial was also performed in eight adult patients with hypophosphatasia, a rare disorder characterized by abnormal development of bones and teeth. Three different setrusumab doses were administered and a positive effect on bone formation biomarkers was observed.

Additionally, Novartis performed a Phase 2 clinical trial in a total of 44 postmenopausal women with low bone mineral density, in which 36 subjects were treated with setrusumab. The trial had four arms, with patients dosed weekly for three weeks (4 doses), monthly for three months (4 doses) and quarterly for one quarter (2 doses), and a placebo group. In this trial, setrusumab increased bone mineral density up to 7.8%, 7.3% and 4.3% in the weekly, monthly and quarterly groups, respectively.

Phase 2 Clinical Trial in Osteogenesis Imperfecta

Novartis conducted a Phase 2 randomized, open-label, intra-patient dose-escalating proof-of-concept trial in the United States, Canada and Europe in adults with OI. The objectives were:

- to evaluate safety and tolerability of setrusumab;
- to evaluate the effect of setrusumab on lumbar spine bone mineral density measured by DXA scan; and
- to determine the pharmacodynamic effect of setrusumab when administered as multiple dose escalating intravenous infusions on:
  - serum bone formation markers, including procollagen 1 N-terminal propeptide (“P1NP”), procollagen 1 C terminal propeptide (“P1CP”), osteocalcin (“OC”) and bone-specific alkaline phosphatase (“BSAP”); and
  - serum bone resorption markers, including C-telopeptides of type I collagen cross-links (“CTX-1”) and N-telopeptides of type I collagen cross-links.

The trial included 14 patients with types I, III and IV OI, nine of which were treated and five of which were observed as a reference group in parallel during the trial to provide comparative data. The reference patients did not receive drug or placebo. The patients were treated with a low, medium and high dose of setrusumab two weeks apart, over four weeks, and were followed for a total of 21 weeks after the last dose. DXA studies were performed at day 141 and bone biomarkers were measured on days eight, 15, 29, 36, 43, 57, 85, 113 and 141, for both groups.

Treatment with setrusumab showed a statistically significant increase in lumbar spine bone mineral density from baseline, which was sustained at day 141 of the trial, 16 weeks after the last dose of setrusumab, with a mean increase in lumbar spine bone mineral density in treated patients of 4%, as shown in the table below:

	Setrusumab			Reference		
Parameter	Number of patients	Ratio of geometric mean to baseline	p-value	Number of patients	Ratio of geometric mean to baseline	p-value
Bone Mineral Density	9	1.04	0.038(1)	4(2)	1.01	0.138

(1) Statistically significant, meaning a less than 5% chance (or p-value less than 0.05) that the observed results occurred by chance alone.
(2) One patient in the reference group did not complete the study and is not included in the results.

Bone turnover comprises two processes: the removal of bone and the laying down of new bone. Markers in blood can be used to assess the formation and resorption of bone. P1NP and CTX-1 are

the markers of bone formation and resorption, respectively, that are recommended for clinical use and are considered the two reference markers by the International Osteoporosis Foundation and International Federation of Clinical Chemistry.

Treatment with setrusumab also showed a statistically significant improvement in all measured bone formation biomarkers at day 43 of the trial, as shown in the table below, as well as a trend of reduction in the CTX-1 biomarker of bone resorption:

	Setrusumab			Reference			
Bone formation biomarker	Number of patients	Ratio of geometric mean to baseline	p-value	Number of patients	Ratio of geometric mean to baseline	p-value	Ratio of geometric means 90% confidence interval
P1NP	9	1.84	0.001(1)	5	1.06	0.651	1.75
P1CP	9	1.53	0.003(1)	5	1.05	0.600	1.45
BSAP	9	1.59	0.001(1)	5	0.87	0.582	1.83
OC	9	1.44	0.012(1)	5	0.81	0.436	1.78

(1) Statistically significant.

These results showed a statistically significant upregulation in the activity of P1NP, P1CP, BSAP, and increased OC levels, while the corresponding biomarkers remained unchanged or declined moderately in the reference group.

We believe that the observed increase in lumbar spine bone mineral density in patients treated with setrusumab, along with the bone biomarker data, support the bone anabolic effects of setrusumab in adult patients with moderate OI and support the potential for setrusumab to stimulate bone formation and reduce bone resorption after a low, medium and high dose.

Summary of Safety Results

In the trials conducted by Novartis, setrusumab was generally well tolerated. In the Phase 2 OI clinical trial, there was one non-drug related significant adverse event in the reference group. The most common adverse events were headaches, influenza, arthralgia and fatigue both in patients who received setrusumab and in the reference group.

Current and Planned Clinical Trials in Osteogenesis Imperfecta

In May 2017, we commenced a Phase 2b clinical trial of setrusumab in adults in the United States, Europe and Canada. The Phase 2b clinical trial is a multi-center, randomized trial with three blinded arms at a high, medium and low doses to establish the dose response curve and an open label arm at the top dose. The trial completed enrollment of 112 patients and we reported 12-month top-line data from the trial in November 2019. Following the 12-month dosing part of the trial, patients will be followed for a further twelve months to examine the off-effects of setrusumab. Similar to the Phase 2 clinical trial conducted by Novartis, we enrolled patients with type I, III and IV OI.

12 month Top-line Data From Setrusumab Phase 2b Dose-ranging Study in Adult Patients

On November 11, 2019 we reported 12-month top-line data from our Phase 2b dose-ranging clinical trial for setrusumab in adults with Type I, III or IV OI.

The primary endpoint of the trial was change in trabecular volumetric bone mineral density (“Tr vBMD”) of the radius (wrist) over baseline after 12 months of treatment as measured by high resolution peripheral quantitative computerized tomography (“HRpQCT”). Cortical bone, or compact bone, is denser and is primarily found in the shaft of long bones and forms the outer shell around

trabecular bone, or cancellous or spongy bone, at the end of joints and the vertebrae. As a result of the unexpected high heterogeneity of the trial patients' trabecular bone baseline values at the wrist (including both very low and very high trabecular bone at baseline as compared to the literature available), the primary endpoint was not met at any of the three setrusumab dose levels. HRpQCT is a relatively new imaging technique that has not been used widely in clinical studies and was chosen in order to improve the understanding of the effect of setrusumab on the bone biology in OI patients, given it can measure both trabecular and cortical volumetric BMD separately. Importantly, an increase in total BMD at the wrist as measured by HRpQCT (measuring cortical and trabecular together), a secondary endpoint of the study, was observed and reached statistical significance in the medium and high dose cohorts. Mean increases in total volumetric BMD were 4.11% (p=0.004), 4.85% (p=0.028), and -0.18% (p=0.97) in the high, medium, and low dose cohorts (*post hoc analysis*), respectively. This suggests total volumetric BMD increases were driven by the ability of setrusumab to increase cortical volumetric BMD.

The study achieved its important secondary endpoint of increase in areal BMD at the lumbar spine at six and 12 months over baseline using two-dimensional dual energy x-ray absorptiometry ("DXA"), a well-established measurement tool of BMD (cortical and trabecular bone), reaching statistical significance in the high and medium doses cohorts at both six and 12 months, with a clear dose-dependent response. Mean increases in areal BMD at the lumbar spine were 8.8% (p<0.001), 6.8 % (p<0.001), and 2.6% (p=0.057) in the high, medium, and low dose cohorts at 12 months, respectively. Moreover, increases in areal BMD were consistent across all OI subtypes (I, III and IV) represented in the study and improved with duration of treatment. Statistically significant changes in areal BMD were also observed by DXA at the femoral neck and total hip with mean increases of 3.1% (p=0.022) and 2.2% (P=0.011), respectively, at 12 months in the high dose cohort.

Although the Phase 2b trial was not powered to show a difference in fracture rates, a trend of reduction in fractures was observed in the high-dose cohort. Setrusumab was safe and well-tolerated in the study. There were no cardiac-related safety concerns observed in the study.

The study enrolled 112 adults (69 with type I, 28 with type IV and 15 with type III OI) at 27 clinical sites across the U.S. and Europe and randomized patients originally to one of four different blinded monthly dosing regimens of setrusumab: high, medium, low and placebo. The study was subsequently revised to convert the placebo arm into an open-label arm where patients received the high dose regimen of setrusumab. Six-month results from this open-label arm were reported in May 2019 and presented at the American Society of Bone Mineral Research (ASBMR) Annual Meeting in September 2019. Patients in the open-label arm of the study have not yet completed 12 months of treatment with setrusumab, therefore the top-line 12-month results reported on November 11, 2019 are from the three-arm blinded portion of the study. Set forth below is additional information on the Phase 2b dose-ranging clinical trial for setrusumab in adults with Type I, III or IV OI.

Phase 2b (ASTEROID) Study Design

The Phase 2b dose-ranging (ASTEROID) study was a 12-month, randomized, double-blind, Phase 2b dose-finding study in 112 adults diagnosed with type I, III or IV OI and a confirmed COL1A1/COL1A2 mutation who have fractured over the previous five years. The primary endpoint of the study was the change over baseline in Tr vBMD of the wrist at 12 months, assessed using HRpQCT. Change from baseline at six and 12 months for areal BMD at the lumbar spine, as measured by DXA, was an important secondary endpoint. Additional secondary endpoints included HRpQCT parameters (such as total volumetric BMD), bone biomarkers, patient reported outcomes (PRO) and quality of life measures. Fracture data were also collected throughout the duration of the study, although the trial was not statistically powered for fractures.

Patient Baseline Demographics

The study enrolled 112 adults (69 with type I, 28 with type IV and 15 with type III OI) at 27 clinical sites across the U.S. and Europe and randomized patients originally to one of four different blinded monthly dosing regimens of setrusumab: high, medium, low and placebo. The study was subsequently revised to convert the placebo arm into an open-label arm where patients received the high dose regimen of setrusumab. Six-month results from this open-label arm were reported in May 2019 and presented at the ASBMR annual meeting in September 2019. Patients in the open-label arm of the study have not yet completed 12 months of treatment with setrusumab, therefore the top-line 12-month results reported in November 2019 are from the three-arm blinded portion of the study.

Patients in the trial had not been treated with bisphosphonates in the previous three months or other anabolic or anti-resorptive medications in the previous six months. Ten patients discontinued treatment with setrusumab in the blinded portion of the study.

Efficacy Endpoint Results

Patient baseline Tr vBMD HRpQCT values ranged widely from 18.2 to 279 and changes did not show a dose response. As such, the study demonstrated mean changes in Tr vBMD of the wrist over baseline of 0.7% (±5.1), -0.8% (±4.2), and 0.61% (±2.8) in the high (n=27), medium (n=20), and low dose (n=22) cohorts, respectively. When combined with the change in cortical volumetric BMD of the wrist, a dose-dependent percentage increase in total volumetric BMD was observed (a secondary endpoint of the study), reaching statistical significance in the medium and high dose cohorts. Mean increases in total volumetric BMD were 4.11% (p=0.004), 4.85% (p=0.028), and -0.18% (p=0.97) in the high, medium, and low dose cohorts, respectively, suggesting total BMD increases may be driven by the ability of setrusumab to increase cortical volumetric BMD. The total volumetric BMD increase in the high dose cohort was in line with the open-label data reported in May 2019 and presented at ASBMR in September 2019, where an increase of 3.0% was observed at six months at the high dose.

The study achieved its important secondary endpoint of increase in areal BMD at the lumbar spine at six and 12 months over baseline using two-dimensional DXA measurement, reaching statistical significance in the high and medium doses cohorts at both six and 12 months, with a clear dose-dependent response. The magnitude of areal BMD changes over baseline at the lumbar spine at six months in the blinded high-dose cohort was consistent with the previously reported six-month data from the open-label arm of the study.

Table 1: Increase in areal BMD at the lumbar spine as measured by DXA by dose cohort

Dose Cohort	Mean % Change in Areal BMD at Six Months	P Value at Six Months	Mean % Change in Areal BMD at 12 Months	P Value at 12 Months
High (n=23)	+4.2%	p<0.001	+8.8%	p<0.001
Medium (n=17)	+3.61%	p=0.003	+6.8%	p<0.001
Low (n=21)	+1.52%	p=0.153	+2.6%	P=0.057

Increases in areal BMD as measured by DXA were also consistent across all OI subtypes represented in the study (types I, III and IV).

Table 2: Increase in areal BMD at the lumbar spine as measured by DXA by OI subtype in high dose group

OI Type in High Dose Cohort	Mean % Change in Areal BMD at Six Months	Mean % Change in Areal BMD at 12 months
Type I (n=17)	+4.1%	+8.6%
Type III & IV (n=6)	+5.4%	+9.8%

Statistically significant changes in areal BMD were also observed by DXA at the femoral neck and total hip with mean increases of 3.2% (p=0.022) and 2.3% (P=0.009), respectively, at 12 months in the high dose cohort.

Although the study was not statistically powered to show a difference in fracture rates, a trend of reduction in fractures was observed in the high dose cohort. Fractures in the study included both X-ray confirmed as well as those confirmed by a local radiologist dependent on the nature of the fracture.

Table 3: Percentage of patients with at least one fracture and occurrence rate per patient year

Dose Cohort	Percentage of Patients Experience [3] 1 New Fracture	Fractures per Subject Year
High (n=27)	15%	0.16
Medium (n=20)	35%	0.49
Low (n=22)	23%	0.39

Summary of Top-line Safety Results

Top-line 12-month safety results suggest setrusumab was safe and well tolerated in the study. The adverse event profile was balanced across the arms. There were five, eight and four serious treatment emergent adverse events in the high, medium and low dose groups, three of which were initially recorded as treatment related. Two events occurred in one patient, these were headache and hydrocephalus. The patient had a history of basilar invagination, subdural haematoma and subdural haemorrhage; the Neurologist and Data Monitoring Committee (“DMC”) concluded that the events were unlikely related to the study drug. There was a temporary interruption to the study drug but the patient restarted treatment and continued the study with no complications. The other serious adverse event that was initially recorded as related was of anaphylactic reaction, which occurred two days following setrusumab infusion. This was the patient’s sixth infusion. As the reaction was two days following the infusion and the patient previously had five doses, it was determined that it was unlikely to be a drug reaction and the patient continued therapy, without symptoms or signs with repeat infusions. All of the nine adverse events that were reported as potentially cardiac related were discussed at the DMC (including cardiology review), and none were concluded to represent a cardiovascular safety concern.

Next Steps

Patients who have completed 12-months of treatment in the ASTEROID study continue into a 12-month extension “off therapy” portion to examine the off effect of setrusumab. Patients who continue in the extension portion have the option to receive 12 months of treatment with the bisphosphonate zoledronic acid (given at months six and/or 12). Such patients will receive both DXA and HRpQCT scans at six and 12 months after entering the extension portion.

In addition, we have agreed on a PIP for setrusumab with the EMA and intend to prepare for a pivotal trial of setrusumab in the United States, Europe and Canada in children with severe OI in 2020, with fracture rate as the primary endpoint. We intend to enroll approximately 165 children aged 5 to <18 years old in this trial. Based on our interactions with the EMA, we believe that the results from this trial, if favorable, will be sufficient to support the submission of a MAA for setrusumab for the treatment of children with severe OI and a CMA for the treatment of OI in adults in the EU.

The FDA approved the first sclerostin inhibitor for treatment of osteoporosis, romosozumab (Evenity), in April 2019 following an 18-1 favorable advisory committee vote. This was over a year after the FDA rejected our request for a Type C meeting to discuss the initiation of a pediatric Phase 3 study for setrusumab for the treatment of patients with severe OI. Based on these events and with our setrusumab Phase 2b efficacy and safety data in adult OI patients, we re-engaged with the FDA at the

end of 2019 to discuss the expansion of the pivotal trial of setrusumab for the treatment of patients with severe OI to include sites in the United States. In February 2020, we announced the successful completion of a Type B End-of-Phase 2 meeting with the FDA to discuss the development of setrusumab for the treatment of children and adolescents with OI in the United States. See “Prospectus Summary—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA.”

In Europe, the EMA has an adaptive pathways program which allows for early and progressive patient access to medicine. In July 2016, the EMA launched the PRIME scheme, a voluntary scheme aimed at enhancing the EMA’s support for the development of medicines that target unmet medical needs. In February 2017 setrusumab was accepted into the adaptive pathways program and in November 2017, the EMA granted PRIME designation for setrusumab for the treatment of OI. See “—Government Regulation—Foreign Government Regulation.”

In February 2020, we announced the successful completion of a Type B End-of-Phase 2 meeting with the FDA to discuss the development of setrusumab for the treatment of children and adolescents with OI in the United States. See “Prospectus Summary—Recent Developments—Positive Feedback from Type B End-of-Phase 2 Meeting with the FDA.”

Alvelestat (MPH-966) for the Treatment of Severe Alpha-1-Antitrypsin Deficiency (“AATD”)

Overview

We are developing alvelestat for the treatment of severe AATD, a potentially life-threatening rare, genetic condition that results in severe debilitating diseases, including early-onset pulmonary emphysema. Alvelestat is a novel, oral small molecule designed to inhibit NE. Scientific data indicate that the increased risk of lung tissue injury in AATD patients may be due to inadequately controlled NE caused by insufficient AAT. We believe that by inhibiting NE, alvelestat has the potential to reduce the destruction of lung tissue and stabilize clinical deterioration in severe AATD patients.

Background of Alpha-1-Antitrypsin Deficiency

AATD is a genetic disease. There are estimated to be 50,000 people in North America and 60,000 in Europe with severe AATD, which we define as AATD in patients with either a PiZZ genotype or Null/Null genotype. The major function of AAT in the lungs is to protect the connective tissue from NE released from triggered neutrophils. In the majority of people, the lungs are defended from NE attack by AAT, which is a highly effective inhibitor of NE. Severe AATD patients produce ineffective or no AAT and are, therefore, unable to defend against NE attack. As a result, severe AATD patients commonly experience degeneration of lung function, such as early-onset pulmonary emphysema, which significantly affects quality of life and life expectancy. They may require oxygen therapy in order to continue their daily lives and the most severe patients may require lung transplantation.

AATD is the result of a mutation of the SERPINA1 gene. Most people with severe AATD inherit two copies of the defective PiZ allele, or gene variant, of the SERPINA1 gene, resulting in a PiZZ genotype. Patients with a PiZZ genotype have approximately 15% of normal AAT levels. Individuals who inherit two copies of the Null allele, resulting in a Null/Null genotype, do not produce any AAT. These two groups are at very high risk of developing lung disease. AATD patients with the PiZZ genotype experience a decline in FEV1, a standard measure of exhalation. The annual mortality rate in this genotype estimated to be 4%. Given that individuals with the Null/Null genotype do not produce any AAT, we believe that they are likely to experience an even greater annual decline in FEV1.

Current Treatment Landscape for Alpha-1-Antitrypsin Deficiency

AATD patients are monitored by pulmonary functions tests, including spirometry. Treatment involves bronchodilators and inhaled corticosteroid medications and pulmonary rehabilitation, with increased intensity of therapy guided by disease severity. Surgical options include lung volume reduction surgery and lung transplantation. Both are highly invasive, and transplantation is only an option for a portion of patients with end-stage disease despite optimal therapy.

Augmentation therapy is available for AATD, using a partially purified plasma preparation highly enriched for AAT that is administered weekly by intravenous infusion. This therapy was first approved by the FDA in the 1980s based on its biochemical efficacy, meaning its ability to raise blood levels of AAT, but not based on clinical outcome data. Several observational studies have suggested that AAT augmentation therapy may slow the rate of decline in lung function in a subgroup of AATD patients with moderate-to-severe airflow obstruction. In a randomized, controlled trial of augmentation therapy, patients had some reduction in the progression of emphysema, as assessed by measuring lung density using computed tomography. The study did not show significant slowing in the decline in FEV1.

We believe that current therapies for AATD are inadequate. Surgical options are limited to a few patients, are highly invasive, have variable results, and do not address the underlying pathology of AATD. AAT augmentation therapy, while FDA approved, was not approved on the basis of clinical outcome data. Further, AAT augmentation therapy is not reimbursed and thus is not currently available to patients in several jurisdictions, including some key European markets. In addition, AAT augmentation therapy requires potentially inconvenient weekly intravenous infusions.

Our Approach

Our product candidate for treating severe AATD is alvelestat, a potent, specific oral small molecule that is designed to inhibit NE. We believe that by inhibiting NE, alvelestat has the potential to reduce the enzymatic destruction of lung tissue. Furthermore, we believe that convenient oral dosing of alvelestat could provide a significant advantage compared to the current treatments for AATD of surgery or weekly intravenous AAT augmentation therapy. In our clinical development programs, we intend to generate data to allow healthcare authorities to take evidence-based decisions.

Clinical Development of Alvelestat

The following table summarizes the historical and planned clinical trials of alvelestat:

Historical Trials				Current Trials			
Phase	# of Studies	Population	Subjects Treated with Alvelestat	Phase	Population	Enrollment	Trial Started
Phase 1	7	Healthy Volunteers / COPD	143	Phase 2	AATD	165	Q4 2018
Phase 2	3	COPD	958				
Phase 2	1	CF	26				
Phase 2	1	Bronchiectasis	22				

Phase 2 Clinical Trials

Although prior clinical trials of alvelestat were in indications other than AATD, we believe that the clinical benefit observed in these trials and the biomarker evidence of treatment effect make alvelestat a promising potential product candidate for treating severe AATD. In particular, we believe the results from the Phase 2 clinical trials in bronchiectasis and CF are most relevant in assessing alvelestat's potential to treat severe AATD.

Phase 2 Clinical Trial in Bronchiectasis

AstraZeneca conducted a double-blind, placebo-controlled Phase 2 clinical trial in bronchiectasis in a total of 38 patients, 22 of whom were treated with alvelestat, using a 60 mg dose of alvelestat

administered twice daily for four weeks. Bronchiectasis is a disease characterized by localized, irreversible dilatation of parts of the bronchial tree, caused by destruction of the structural components of the bronchial wall that result from a vicious cycle of transmural infection and inflammation. Neutrophils play a key role in inflammation in bronchiectasis with airway neutrophilia resulting in high concentrations of neutrophil proteases, such as NE, which may be inadequately neutralized by anti-proteases.

The results of this four-week trial showed a statistically significant improvement at day 28 versus placebo in mean FEV1 of 100 ml (p=0.006) and a clinically meaningful improvement of 130 ml (p=0.079) in mean slow vital capacity, which measures the volume of air on a slow full expiration of air in the patient's lungs. The effect on the St. George's Respiratory Questionnaire, a questionnaire that measures quality of life in patients with diseases of airways obstruction, favored alvelestat overall and in each measured domain, with a more than four-unit difference in the overall score, demonstrating clinical relevance. In addition, although the data did not show statistical significance in desmosine levels in urine, the treatment group showed a reduction in desmosine levels while the placebo group showed an increase in desmosine levels.

We believe that bronchiectasis and AATD share common pathological features such as damage to structural parts of the bronchial tree caused by neutrophil proteases that support the potential for alvelestat to treat severe AATD, a disease driven primarily by insufficient inhibition of NE.

Phase 2 Clinical Trial in Cystic Fibrosis

AstraZeneca conducted a double-blind, placebo-controlled Phase 2 clinical trial in CF in a total of 56 patients, 26 of whom were treated with alvelestat, using a 60 mg dose of alvelestat administered twice daily for four weeks. CF is a disease that results in thickened secretions and endobronchial infections. These chronic infections are associated with an exaggerated inflammatory response in the airways and neutrophil infiltration of the lungs. The presence of neutrophils in the airways, and the resulting high concentrations of neutrophil proteases, such as NE, suggest that neutrophils are contributors in the pathogenesis of the proteolytic lung destruction associated with CF.

The trial was designed to examine the safety and efficacy of alvelestat and its effect on the biomarkers of lung damage. The trial did not demonstrate a statistically significant benefit in lung function, which we believe was due to the anti-proteolytic mechanism of action of alvelestat only addressing one component of the pathology of CF. However, there was a statistically significant reduction in free desmosine in urine corrected for creatinine (p=0.002), and a reduction in plasma desmosine of 16%. Desmosine and isodesmosine are unique cross linking amino acids in elastin. Elastin is a protein that makes up the structure of the alveoli in the lungs and provides the pressure that allows for easy breathing, but is vulnerable to breakdown by NE. The reduction in desmosine in this trial indicates a reduction in the breakdown of elastin. As the proposed mechanism of action of alvelestat is to inhibit the NE activity in severe AATD patients, we believe this supports the utility of desmosine as a clinical biomarker in our Phase 2 proof-of-concept study.

We believe that the data from this trial provide proof of concept for mechanistic effect and the use of desmosine as a biomarker of lung degradation in diseases of high or unopposed NE, such as severe AATD.

Summary of Safety Results

In the clinical trials conducted by AstraZeneca, no treatment-related serious adverse events were identified. A dose of up to 120 mg twice daily was well tolerated in Phase 1 clinical trials and a dose of 60 mg twice daily was well tolerated in the CF, bronchiectasis and COPD Phase 2 trials. Across the 1,149 patients and healthy volunteers treated with alvelestat, 16 patients had an elevation of liver

enzymes with alanine transaminase or aspartate transaminase enzyme concentrations elevated to greater than three times the upper limit of normal, but no patient met the criteria of Hy's law of drug-induced liver injury and no dose dependency was observed. Headache was the most frequently reported adverse event among eight out of the 12 studies completed to date. It was seen in up to 39% of those who received multiple doses and was seen on both active and placebo. Across all the studies, two of the headaches were reported as severe but most of the headaches were mild in intensity. Independent safety review committees evaluated this data and recommended that the trials continue.

Phase 2 Clinical Trial in Severe AATD

We are conducting a Phase 2 proof-of-concept clinical trial of alvelestat in 165 patients with severe AATD in the United States and the EU and expect to report top-line data from this trial in mid-2020. The trial is a 12-week, double-blind, placebo-controlled clinical trial examining two doses of alvelestat compared to placebo with primary endpoints of elastin breakdown as measured by the biomarker desmosine. We believe that by inhibiting NE, alvelestat will reduce the breakdown of elastin and therefore the amount of desmosine. Planned secondary endpoints are plasma A_a-Val(360), a biomarker of NE activity, NE activity in sputum, and lung function tests, including FEV1.

We plan to enroll only patients with PiZZ or Null/Null genotypes with confirmed emphysema, who have not received AAT augmentation therapy or have undergone a wash-out period following AAT augmentation therapy.

If the results from this trial are favorable, we intend to seek regulatory advice on the design of, and commence, a pivotal trial.

We received an investment from, and are collaborating with, the venture philanthropy arm of the Alpha-1 Foundation, TAP, with respect to our alvelestat development program. TAP is investing in the program subject to our meeting agreed-upon development milestones. We also agreed to issue warrants to TAP to subscribe for shares in us, at certain future dates and subject to TAP making agreed-upon investments in the alvelestat development program. On October 8, 2018, we entered into a funding agreement with TAP, which provided for funding of up to $0.4 million. On November 1, 2018 the first tranche of $0.1 million was received and as a result we issued 41,286 warrants to subscribe for our ordinary shares at an exercise price of £0.003 per share.

Acumapimod (BCT-197) for the Treatment of AECOPD

Overview

We are developing acumapimod as a first-line acute therapy in patients with a severe AECOPD to reduce further acute exacerbations of COPD. Acumapimod is a novel, orally active p38 MAP kinase inhibitor designed to inhibit the pathological mechanism behind inflammation, which is a key feature of AECOPD. Currently available treatments only manage the symptoms of severe AECOPD and are comprised primarily of oxygen therapy, corticosteroids, antibiotics, and bronchodilators. We believe acumapimod offers a potential new treatment by targeting the underlying disease and delivering tangible benefits for patients and payors by potentially preventing severe AECOPD, or reducing the frequency of exacerbations and reducing readmissions.

Background of COPD and AECOPD

COPD includes chronic bronchitis, emphysema, refractory (non-reversible) asthma, and some forms of bronchiectasis. COPD is a non-fully-reversible, progressive lung disease that was the third largest cause of death in the world in 2010 according to the Global Burden of Disease Study, and the WHO forecasts that it will remain the third largest cause of death in the world in 2030. The National Heart Lung Blood Institute estimates that 16 million people in the United States have been diagnosed

with the disease and the same number likely suffer from the disease without being aware of it. In 2015, according to the WHO, there were over three million deaths from the disease worldwide.

An AECOPD is defined as an acute event characterized by a worsening of the patient's symptoms beyond normal day-to-day variations that requires a change in medication and a severe AECOPD is where a patient requires hospitalization or visits the emergency room. Typical symptoms include an increase in breathlessness and/or increase in sputum production, which lead to an increase in the frequency or dose of bronchodilators or an increase in corticosteroid use, or the need to seek further medical attention. The risk of AECOPD increases with COPD progression and increases following exacerbations. Increased inflammation is a core feature of an AECOPD. This is demonstrated by inflamed airways and the influx of white blood cells that respond to and can propagate inflammation.

On average, COPD patients suffer one to three AECOPDs per year with an average hospital stay, if admitted, of three to 10 days. Each episode of AECOPD poses significant risk to the patient, including an increased risk of death. Approximately 8% of patients admitted to the hospital for COPD die while in the hospital. The frequency and severity of exacerbations increase with age, disease severity and history of prior AECOPD. The five-year survival rate for those suffering three or more AECOPDs per year is 30%, but those who do not suffer AECOPDs have an 80% survival rate. Moderate to severe cases of AECOPD can also result in greatly diminished quality of life, disability, and serious co-morbidities, including heart disease. After an AECOPD many patients do not return to their pre-AECOPD baseline respiratory function. Furthermore, a patient who has several AECOPDs a year is typically exposed to large quantities of systemic corticosteroids, which can lead to osteoporosis and diabetes.

AECOPDs account for the greatest proportion of COPD costs. Of all COPD-related hospital admissions in the United States, approximately 63% are for AECOPD patients, representing more than 1.5 million emergency room visits in the United States alone. Based on current estimates of U.S. COPD rates, the direct costs of COPD are estimated at $4,000 per patient per year. Costs increase in correlation with each progressive stage of the disease. In the United States in 2010, mild COPD patients had median direct costs of $1,681 per patient per year, moderate patients had direct costs of $5,037 per patient per year and severe patients had direct costs of $10,812 per patient per year. Hospital stays make up the greatest proportion of the total COPD burden on the healthcare system, accounting for approximately 45% to 50% of the total direct cost generated by COPD patients. The mean length of hospital stays varies but is typically about 4.7 days. In the United States, the average cost of admission is $7,500 but more than 20% of patients are re-admitted within 30 days with significantly higher cost.

Current Treatment Landscape of AECOPD

We are not aware of any approved therapies for the treatment of AECOPD in the United States or the EU. The management of AECOPD is directed at relieving symptoms and restoring functional capacity of the airways. In its milder forms, an AECOPD can be controlled with inhaled steroids, bronchodilators, and antibiotics. The bronchodilators reduce the patients' breathlessness by opening up the airways, and corticosteroids reduce inflammation. In more severe cases, AECOPD requires hospitalization, where patients are typically treated with oral or intravenous steroids and antibiotics.

The current recommended management for AECOPD includes beta2 agonists, the addition of anticholinergics or an increase in its dosage, the systemic administration of corticosteroids and antibiotics, and the intravenous administration of methylxanthines, such as aminophylline. Additionally, supporting oxygen therapy is used in order to provide the patient with sufficient blood oxygen levels. While AECOPDs are often triggered by bacterial or viral pathogens or pollutants, antibiotics are often used as the precise etiology is often unknown.

We believe that there is a significant medical need for a drug which is disease-modifying and could potentially prevent severe AECOPDs instead of just treating the symptoms. In addition, we believe that a drug that could prevent or reduce severe AECOPDs and also has anti-inflammatory effects would significantly improve the quality of life of COPD patients due to improved lung function, fewer infections and possibly reduced risk of rehospitalization and mortality.

Our Approach

Our product candidate for treating AECOPD is acumapimod, an orally administered small molecule that inhibits p38 MAP kinase. p38 MAP kinase is an enzyme that plays a key role in the cellular response to external stress signals. p38 MAP kinase is activated in COPD and AECOPD. Inhibition of this enzyme has been shown to have anti-inflammatory effects, primarily through the inhibition of the expression of inflammatory mediators or molecules called cytokines. The inflammatory cytokines are key to initiating and escalating the inflammatory response by attracting inflammatory cells and inducing further release of the cytokines by these cells. Key cytokines released in the inflammatory response are tumor necrosis factor alpha ("TNFa") and interleukin-8, which are released in the blood stream, and interleukin-6, which is released from bronchial epithelial cells, all of which are blocked by inhibiting p38 MAP kinase.

We believe that acumapimod has the following key advantages over current therapies:

- potential to be a rapid-onset treatment targeting inflammatory drivers of AECOPD;
- designed to target anti-inflammatory response systemically and locally with easier oral administration than inhaled treatments;
- simple oral regimen of three doses over five days that can be conveniently administered in either the hospital or an outpatient setting;
- designed to target pathophysiology of acute exacerbations without generalized immune suppression;
- potential for efficacy in steroid-resistant population; and
- short course treatment that can reduce further acute exacerbations of COPD.

Clinical Development of Acumapimod

The following table summarizes the historical clinical trials of acumapimod. We intend to explore strategic options with third parties for the further development of acumapimod.

	Historical Trials		
Phase	**# of Studies**	**Population**	**Subjects Treated with Acumapimod**
Phase 1	5(1)	Healthy Volunteers	168
Phase 2	1	AECOPD	108
Phase 2	1	Acute Kidney Injury	50
Phase 2	1	AECOPD	188

(1) Includes two company-initiated 16-patient drug-drug interaction studies.

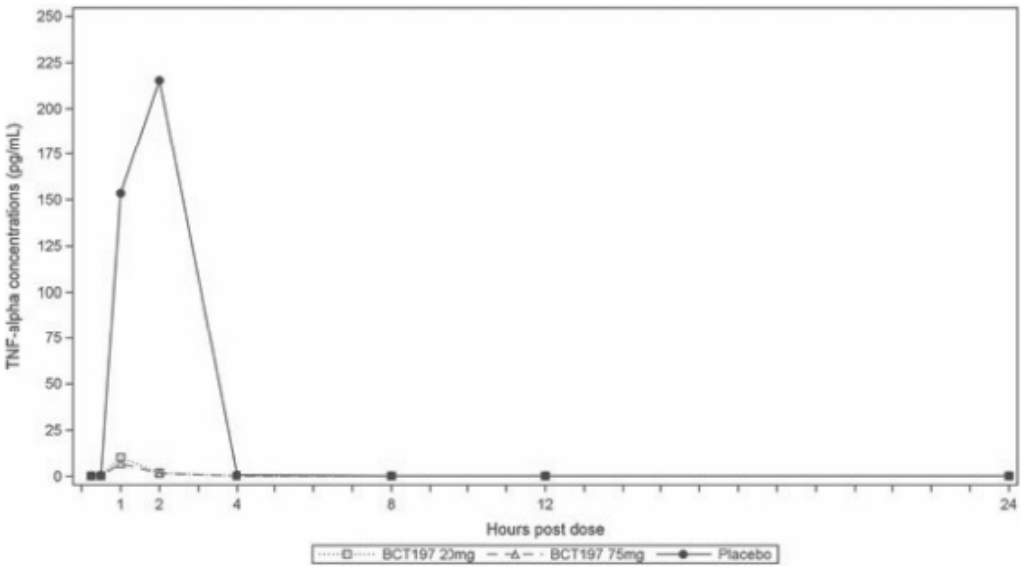
Phase 1 Clinical Trials

Prior to our acquisition of acumapimod, Novartis performed three Phase 1 clinical trials. One of these trials was a three-part Phase 1 clinical trial in a total of 141 healthy volunteers designed to evaluate the safety and anti-inflammatory properties of acumapimod following lipopolysaccharide ("LPS") challenge, a method of inducing an inflammatory response. Parts 1 and 2 of this trial assessed the ability of acumapimod to inhibit TNFa, a pro-inflammatory cytokine, ex vivo following LPS challenge and Part 3 assessed the same in vivo. In Part 1, which was a single ascending dose trial, TNFa was

inhibited by a mean of 50% by doses of at least 30 mg, and in Part 2, which was a multi-ascending dose trial, TNFa was inhibited by a mean of 70%.

In Part 3, a three-arm trial, 24 subjects were randomized to receive placebo, 20 mg of acumapimod, or 75 mg of acumapimod. Subjects were exposed to LPS three hours following dosing of acumapimod or placebo and the concentration of TNFa was measured. In this trial, acumapimod produced a statistically significant reduction in the levels of TNFa in the treated subjects versus placebo. The following graph shows that the TNFa response was seen in both doses of acumapimod.

TNFa Concentration over Time following LPS Challenge n=24



In addition, a radiolabeled pharmacology trial was performed in four healthy volunteers. We believe that the results of this trial suggest that acumapimod has pharmacology appropriate for an oral drug taken either once a day or on alternate days.

Phase 2 Clinical Trial in AECOPD

Novartis conducted a double-blind, Phase 2 clinical trial in Europe comparing acumapimod to the steroid prednisolone and a placebo control. The trial was designed to assess the effect of single and repeated dose of acumapimod in AECOPD patients. The primary endpoint was to demonstrate an improvement in FEV1 relative to placebo. Secondary and exploratory endpoints included the assessment of safety and tolerability, measurement of the time to recovery, and the determination of the pharmacokinetic properties of acumapimod.

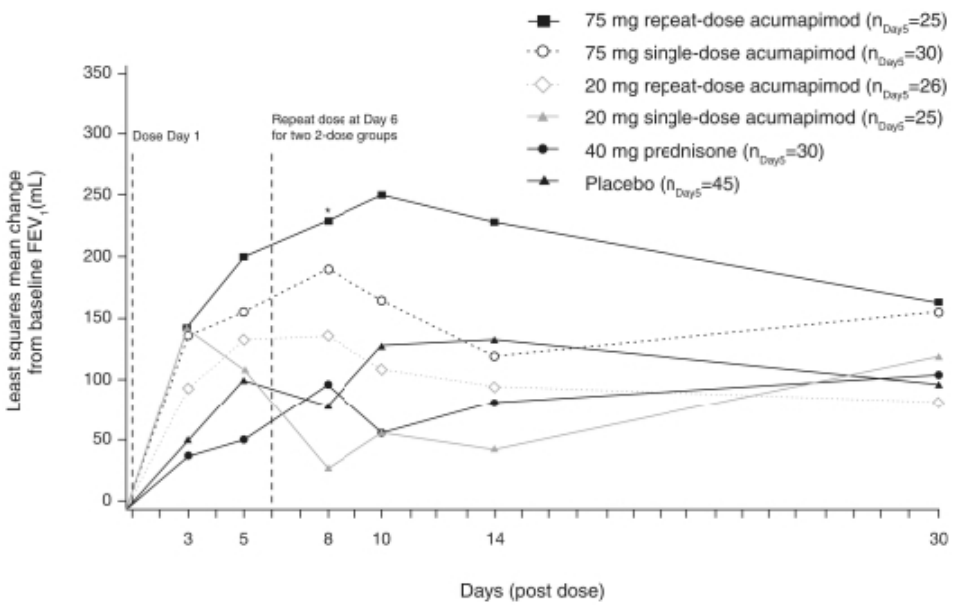
The trial was split into four parts and included a total of 183 patients:

- part 1: 91 patients were randomized to receive either: 75 mg of acumapimod on day one plus placebo daily for 10 days, prednisolone on day one plus placebo daily for 10 days, or placebo on day one and for 10 days daily;
- part 2: 30 patients were randomized to receive 20 mg of acumapimod or placebo on day one of the trial. The ratio of patients receiving acumapimod to patients receiving placebo was five to one;

- part 3: 32 patients were randomized to receive 20 mg of acumapimod or placebo on days one and six of the trial. The ratio of patients receiving acumapimod to patients receiving placebo was five to one; and
- part 4: 30 patients were randomized to receive 75 mg of acumapimod or placebo on days one and six of the trial. The ratio of patients receiving acumapimod to patients receiving placebo was five to one.

The data on FEV1 were recorded on days three, five, eight, 10, 14 and 30 and showed a clinically meaningful increase in FEV1 (of greater than 100 milliliters) on measuring dates in patients receiving two doses of acumapimod, during a 14-day period, consistent with the duration of most AECOPDs. The following graph summarizes the mean change from baseline in FEV1 values for each dose arm. The change was greatest in the group that received two doses of 75 mg of acumapimod, reaching statistical significance in this group at day 8 (p=0.022). On analysis of the area under the curve to Day 14, two doses of 75 mg of acumapimod demonstrated a statistically significant improvement in FEV1 versus placebo and prednisolone (p=0.0198 and 0.0102 respectively).

Mean Change in FEV1 from Baseline (ml)



Summary of Safety Results

In trials conducted by Novartis, acumapimod was well tolerated in the target patient population. In the Phase 2a clinical trial, 54% of patients out of 183 experienced one or more adverse events. There were six deaths, none of which were deemed to be attributable to BCT197. Over the six-month follow-up period, 13 patients experienced 15 significant adverse events, excluding deaths: 10 cases of COPD worsening or re-exacerbation, three of pneumonia, one of sinusitis and one of bladder cancer. Six of the COPD adverse events were in the placebo and prednisolone arms, two in the 20 mg repeat dose and two in the 75 mg repeat dose. None of these adverse events were considered by the investigators to be related to acumapimod. There were also two cases of rash in the 75 mg repeat dose arm. Two cases of mild and transient transaminase elevations were reported as adverse events, one in the 20 mg dose group and the other in the 75 mg repeat dose group. Other events were mild to moderate.

Phase 2 Dose-Ranging Clinical Trial in Severe AECOPD

We conducted a dose-ranging Phase 2 clinical trial in the United States and Europe to identify the most effective dosing regimen for severe AECOPD patients. The primary endpoint of the trial was to demonstrate a change in FEV1 from baseline to Day 7. A total of 282 patients enrolled in the trial.

This dose-ranging trial assessed two dosing regimens of acumapimod and placebo, each in combination with standard of care, which included steroids, antibiotics, and bronchodilators. Patients were followed for 26 weeks to explore recurrence rates of AECOPD and number of re-hospitalizations. Secondary and exploratory endpoints included biomarkers hsCRP and fibrinogen, clinical failure rate, number of moderate/severe AECOPDs during the trial, the area under the curve of FEV1 over time and time to normalization of FEV1.

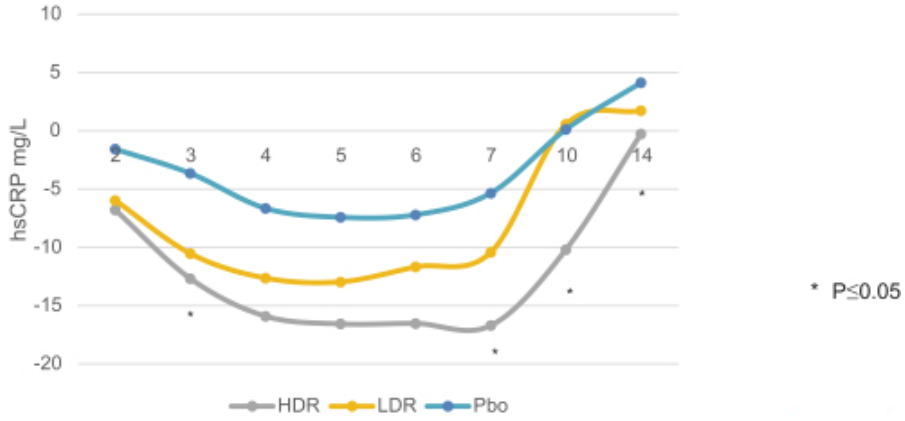
The reduction in clinical failure rate was also observed. Clinical treatment failure is defined as a composite endpoint in which any patient fulfils one of more of the following criteria:

- hospitalization or re-hospitalization due to worsening respiratory symptoms;
- worsening of respiratory symptoms requiring the addition of another antibiotic or substitution of a new antibiotic;
- worsening of respiratory symptoms requiring an increase in dose of oral corticosteroids or initiation of new corticosteroids;
- worsening of respiratory symptoms requiring an additional treatment regimen of systemic corticosteroids and/or antibiotics, after completion of the first regimen;
- COPD-related death; or
- any new moderate or severe exacerbation after a period of seven days of resolution from the index AECOPD.

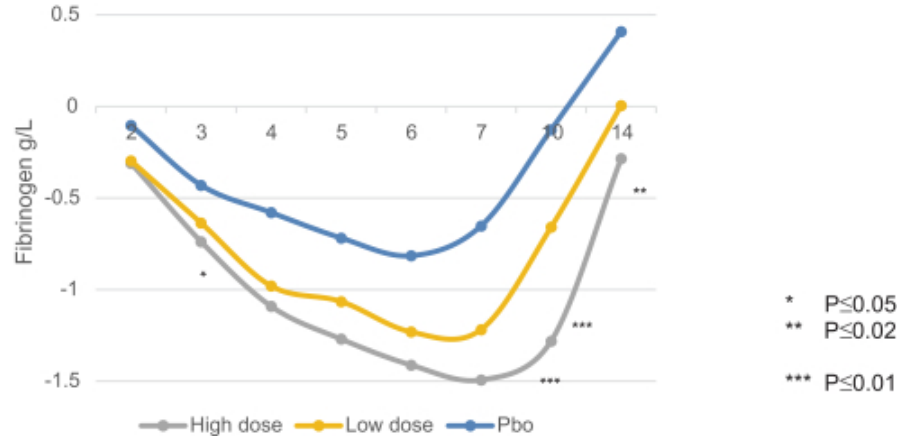
Both dosing regimens of acumapimod showed a statistically significant change in FEV1 from baseline to Day 7 ($p=0.012$ and $p £ 0.001$), meeting the trial's primary endpoint on an intent-to-treat patient population basis. The standard of care plus placebo group did not show a significant change from baseline ($p=0.102$). The high- and low-dosage acumapimod groups showed a mean improvement in FEV1 of 84 ml and 115 ml, respectively, compared to 57 ml for the standard of care plus placebo group. While the acumapimod groups showed greater improvement when compared to the standard of care plus placebo group, the difference in improvement was not statistically significant.

Dose-dependent, statistically significant reductions in both hsCRP and fibrinogen were shown with treatment with acumapimod, with hsCRP remaining suppressed through the 26-week observation period. The graphs below show these reductions during the period when patients were experiencing their first occurrence of AECOPD, or their index AECOPD.

Absolute Change from Baseline in hsCRP During the First 14 days of the Study While Patients Were Experiencing their Index AECOPD

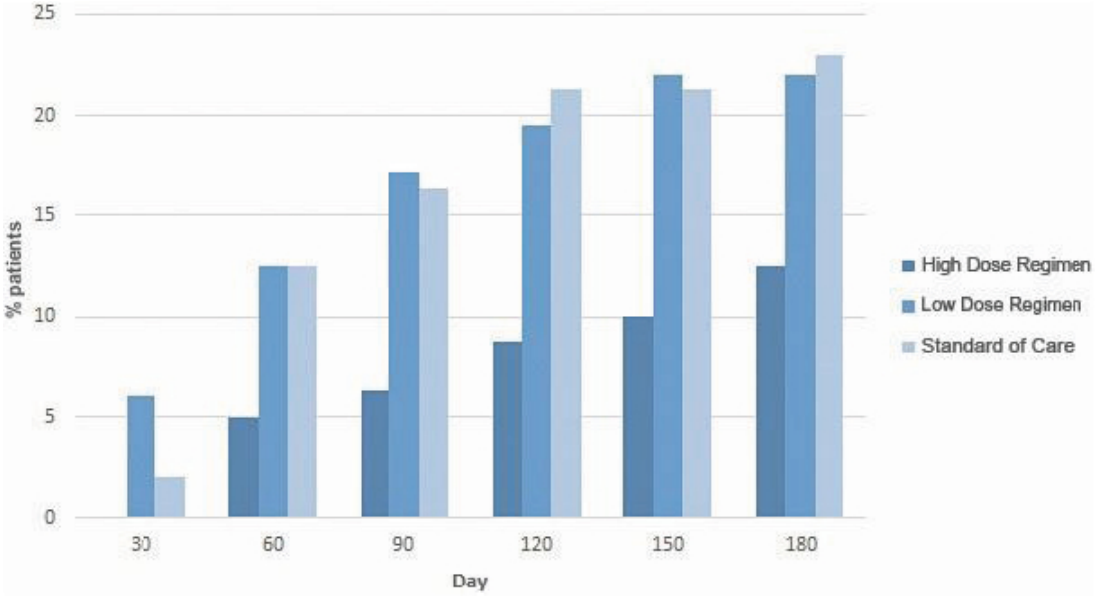


Absolute Change from Baseline in Fibrinogen During First 14 Days of the Study While Patients were Experiencing their Index AECOPD



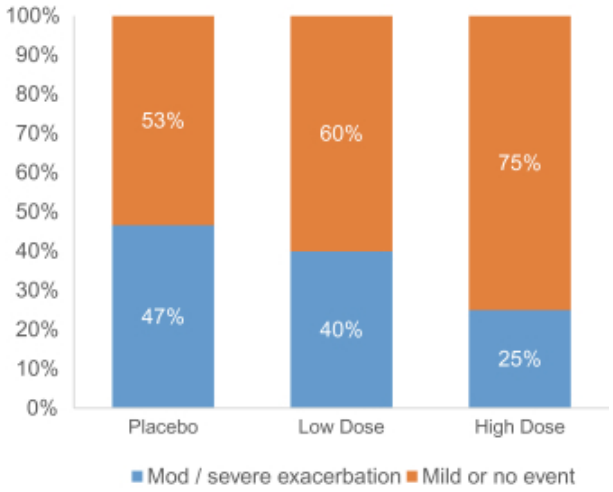
As shown in the chart below, the high-dose acumapimod group showed a statistically significant reduction in clinical treatment failure of more than 50% (p £ 0.027 to 0.05) compared to the standard of care plus placebo group, measured by the number of rehospitalizations for the treatment of COPD at Days 90 through 150, with a trend observed as early as Day 30. A trend showing reduced composite clinical treatment failures of 56% to 28% from Day 30 through Day 150 was also observed in the high-dose acumapimod group.

Percentage of Patients Rehospitalized for the Treatment of COPD



Further analysis of the most severe patients, defined as patients who experienced two or more exacerbations in the previous year, showed a 46% reduction in the number of patients who suffered a subsequent moderate or severe re-exacerbation. The results from the analysis of these patients with the highest unmet need are shown in the graph below.

Re-Exacerbations of Severe COPD Patients During the Follow-up Phase



Consistent with the results from this trial, there was a reduction in the number of patients receiving antibiotic and systemic steroids in the high-dose group versus placebo of 46% observed in the long-term follow-up portion of the trial.

In this trial, acumapimod was observed to be well tolerated. Adverse events included two cases of acneiform rash, which were resolved. No induced liver injuries were observed. In addition, in April 2019, we announced a successful end of Phase 2 meeting with the FDA regarding acumapimod. In the meeting, we and the FDA agreed on a development plan for acumapimod. In September 2019, we had a positive SAWP meeting with the EMA.

Leflutrozole (BGS-649) for the Treatment of Hypogonadotropic Hypogonadism

Overview

We are developing leflutrozole for the treatment of HH in obese men. In obese men, a decline in testosterone is exacerbated by high levels of the aromatase enzyme in the fat tissue. The aromatase enzyme converts testosterone to estradiol, thereby reducing testosterone levels. Leflutrozole is a novel once-weekly oral aromatase inhibitor designed to normalize testosterone levels and improve HH without causing the excessively high testosterone levels and impaired fertility that may result from TRT, the primary treatment for HH. Following the positive result of a safety extension study for leflutrozole, we convened an advisory board meeting and concluded that the future development of leflutrozole should focus on male infertility. We intend to develop a clinical and regulatory path accordingly. We intend to explore strategic options with third parties for the further development of leflutrozole.

Background of Hypogonadotropic Hypogonadism

HH is a clinical syndrome that results from the failure of the testes to produce adequate levels of testosterone. Low testosterone or male hypogonadism is classified in two different types: primary hypogonadism and HH. Primary hypogonadism generally results from the failure of the testes to produce sufficient levels of testosterone, due to testicular trauma, disease (such as mumps), or genetic defects. HH also results from the failure of the testes to produce sufficient levels of testosterone, in this case due to the disruption of the hypothalamic-pituitary-testicular (“HPT”) axis, an endocrine pathway, and is typically associated with obesity, aging, stress, or as a side effect of medications. The symptoms of testosterone deficiency are non-specific, which can make the diagnosis difficult. Symptoms that are most commonly associated with testosterone deficiency include reduced or loss of libido, the absence of morning erections and erectile dysfunction. Other common symptoms include fatigue, impaired physical endurance, loss of vitality, lack of motivation and mood disturbance. In physician assessments of the symptoms of HH, patients rate decreased energy levels and impaired sexual function as having the greatest negative impact on quality of life.

The largest group affected by HH is comprised of men over the age of 40 who suffer from chronic diseases, such as obesity or type 2 diabetes. Based on WHO estimates and scientific data, we believe that there are approximately seven million cases of HH in obese men, generally defined as men with a body mass index (“BMI”) of 30 kilograms per meter squared or more, in the United States. Over 85% of men with HH are untreated despite access to care. Obesity rates continue to increase in the United States and in other developed and developing countries around the world. In 2016, the WHO estimated that 35.5% and 21.9% of males in the United States and the EU, respectively, were obese. A recent study in obese men, published in the Netherlands Journal of Medicine, showed that HH increased linearly with an increase in BMI.

Current Treatment Landscape of Hypogonadotropic Hypogonadism

The primary treatment for HH is TRT, in which testosterone is administered to normalize testosterone levels. There are several available routes of administering TRT, including intramuscular injections, scrotal patches, transdermal patches, transdermal gel, and implants. The direct replacement of testosterone exposes the patient to significant side effects. The FDA has concluded that there is a possible increased cardiovascular risk associated with TRT. One of the most common and serious side effects associated with TRT is impaired sperm formation. Additional complications caused by

excessive testosterone include prostate enlargement, sleep apnea and worsening heart failure, gynecomastia, or breast development in males, and mood swings. Besides these side effects, each of these delivery methods also has considerable drawbacks. For example, intramuscular injections can be painful, gels and patches run the risk of testosterone transmission to other people, and patches can cause skin irritation.

The leading testosterone replacement product candidates on the market are AbbVie's AndroGel and Lilly's Axiron, both of which carry a black box warning. Both product candidates are administered transdermally by applying a gel formulation. Allergan, Inc.'s Androderm is the leading transdermal patch on the market. The most frequently prescribed intramuscular injections are Bayer AG's Nebido and Endo Pharmaceutical Inc.'s ("Endo") Aveed. The leading implant on the market is Endo's Testopel.

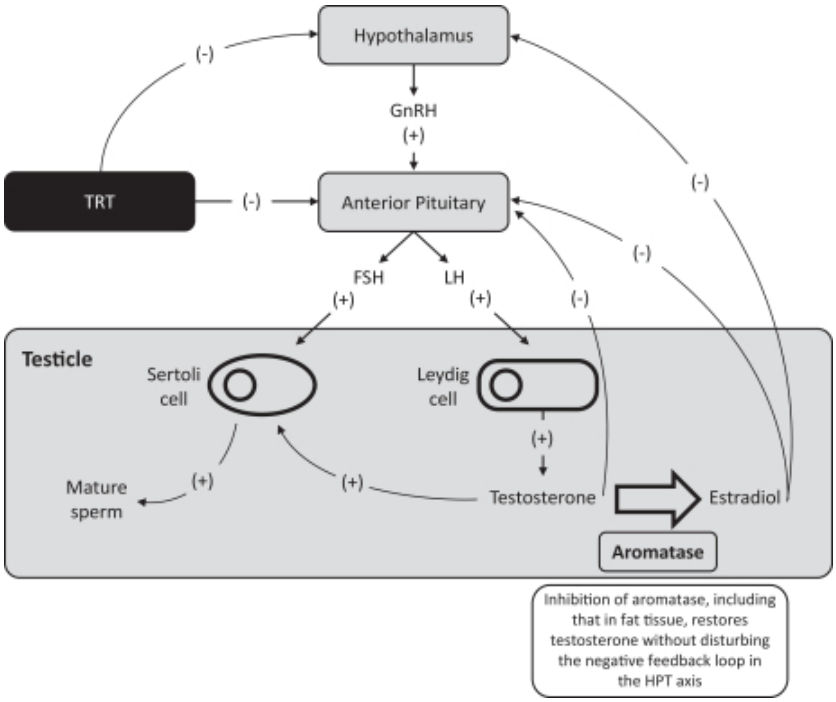
Our Approach

Our product candidate for treating HH in obese men is leflutrozole, which is intended for once-weekly oral administration and is designed to inhibit the aromatase enzyme, instead of directly replacing testosterone. The aromatase enzyme converts testosterone to estradiol, thereby reducing testosterone levels. Aromatase is expressed at high levels in fat tissue, and therefore obese men are potentially more prone to HH. Leflutrozole is intended to restore normal levels of testosterone without causing the excessively high testosterone levels that may result from TRT. In addition, we believe that the long half-life of leflutrozole of 22 days may allow for convenient weekly dosing.

Testosterone is a hormone that is regulated by three organs in the body, the hypothalamus, anterior pituitary glands and testes, which comprise the HPT axis. The initial stimulus for hormone formation begins in the hypothalamus with the formation of hormones, such as gonadotropin-releasing hormone ("GnRH"), that stimulate the pituitary gland to release LH and FSH. LH, in turn, stimulates the testicular production of testosterone, while FSH stimulates sperm formation. As testosterone levels rise, they feedback directly to the hypothalamus and indirectly through estradiol to the hypothalamus and anterior pituitary gland, which reduces the stimulation to produce more hormones, thereby creating a negative feedback loop that maintains normal testosterone levels. In obese men with HH, excessive aromatase enzyme in fat tissue convert testosterone into estradiol, which inhibits the HPT axis by the negative feedback loop.

The administration of exogenous testosterone, such as with TRT, which is not controlled by the HPT feedback loop, rapidly leads to suppression of LH and FSH. Furthermore, as exogenous testosterone is not controlled by the HPT feedback loop, supraphysiological, or excessively high, levels of testosterone can be reached, which have been associated with cardiovascular disease. In contrast to exogenous TRT, leflutrozole is designed to inhibit aromatase and restore testosterone without disturbing the physiological feedback in the HPT axis, thereby maintaining or increasing LH and FSH with minimal risk of reaching supraphysiological levels of testosterone.

The diagram below illustrates the HPT feedback loop process, including the negative effects of TRT:



Clinical Development of Leflutrozole

The following is a table of the historical and planned clinical trials of leflutrozole:

Historical Trials				Planned Trials	
Phase	# of Studies	Population	Subjects Treated with Leflutrozole	Phase	Population
Phase 1	5	Healthy Women / Endometriosis	95	Phase 3	HH obese men
Phase 2	1	HH obese men	24		
Phase 2b	1	HH obese men	200		
Phase 2b (ext)	1	HH obese men	143		

Phase 2 Proof-of-Concept Clinical Trial in Hypogonadotropic Hypogonadism

Novartis conducted a two-part Phase 2 proof-of-concept trial for HH in obese men in North America.

Part 1 was an open-label trial to evaluate the pharmacokinetics and pharmacodynamics of leflutrozole in obese men. Fourteen patients were enrolled in this 12-week trial with a three-month follow-up phase. Patients received a first dose of leflutrozole, and testosterone was measured on days five through seven to allow the physicians to choose subsequent doses with the goal of achieving and maintaining normal testosterone levels. Following the first dose, a range of doses were administered. The average BMI of participants was 34 kilograms per meter squared.

Consistent with the goal of the trial, leflutrozole treatment increased testosterone into the normal range of 300 to 1,000 nanograms per deciliter (“ng/dl”) in all patients exposed in Part 1. Mean baseline

testosterone was 239 ng/dl, and rose to a mean of 514 ng/dl at week 12 of the trial. Both FSH and LH levels also increased in the leflutrozole group.

Part 2 was a two-arm, randomized, placebo-controlled, double-blind 12-week trial, with a three-month follow-up trial. The primary objectives were to evaluate the ability of leflutrozole to normalize testosterone and examine if normalized testosterone benefits insulin sensitivity. The secondary endpoints were safety, tolerability, pharmacodynamic effects on glucose, insulin and lipid metabolism.

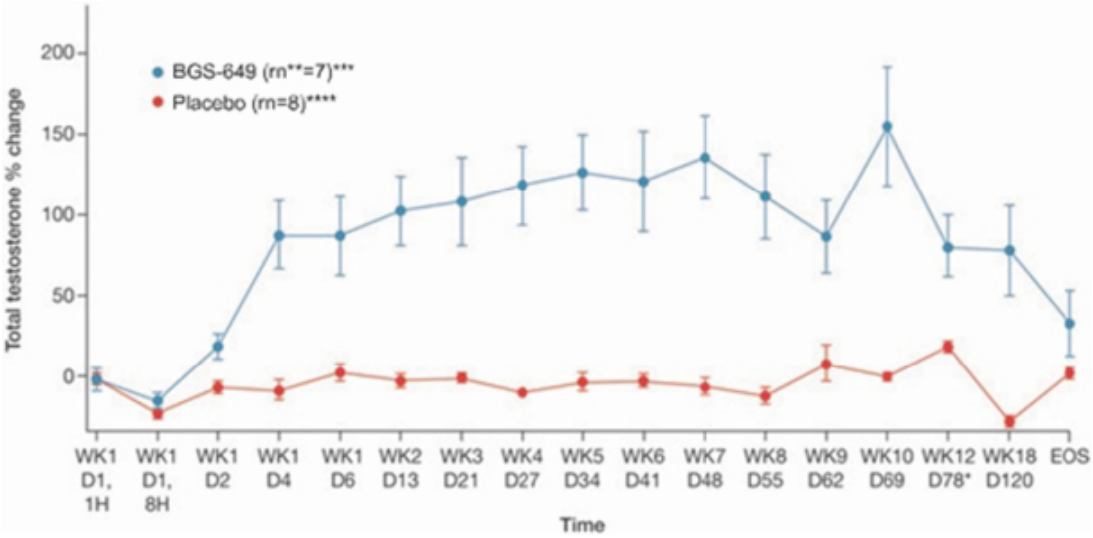
Fifteen patients were enrolled in Part 2 of the trial, eight in the placebo group and seven in the treatment arm. Originally, 30 patients were to be enrolled. Enrollment was terminated early due to a dosing error at a trial site, which resulted in three placebo patients receiving an active dose of leflutrozole. The error was identified after testosterone levels in these three patients normalized, and was confirmed by the presence of leflutrozole in these patients' plasma. The patients who were inadvertently given an initial dose of leflutrozole continued to the end of the trial on placebo. Their results were included in the safety database, but were not included in the efficacy analysis. Therefore, there were five placebo patients. Due to the early termination of the trial, among the placebo patients, one completed the full 12-week protocol, two completed week 10, one completed week seven and one completed week six.

Of the seven patients treated with leflutrozole, five completed all 11 doses, one completed week eight and one completed week six prior to termination of the trial. Their subsequent testosterone levels were recorded and included in efficacy analyses, though one patient missed the end-of-trial blood test as he withdrew consent. Despite the early termination, leflutrozole normalized testosterone levels in all patients treated.

The treated patients received a loading dose of leflutrozole on day one, followed by a lower weekly dose of leflutrozole. The testosterone levels of all patients treated with leflutrozole normalized after one dose and remained in the normal range throughout the treatment period, with the exception of one patient on day 21, whose level dropped to 279 ng/dl but recovered to a level of 480 ng/dl on day 27. Testosterone levels in the placebo patients occasionally reached the normal range, but this effect was not consistent or sustained. In the leflutrozole arm, the mean testosterone level increased from 273 ng/dl at baseline to 423 ng/dl at week 12. Both FSH and LH levels also increased in the leflutrozole group.

The following graph illustrates the percentage increase in testosterone level relative to baseline in patients receiving a weekly dose of leflutrozole or placebo. The testosterone increase was statistically significant in the leflutrozole group from day 4 (p=0.012), with a trend towards return to baseline by the end of the trial, with no evidence of increased total testosterone levels beyond the upper limit of the normal range in any patient exposed to leflutrozole.

Percentage Change in Testosterone from Baseline over Time



* Last dose of BGS-649 administered at week 12 (day 78).

** Due to the early termination of this trial, some of these patients did not receive all doses of BGS-649 or placebo. Instead of the total number of patients who completed the trial in each group, the number of patients that were randomly assigned to each group at the start of the trial ("rn") is provided in this graph.

*** Five patients received BGS-649 through week 12 of the trial, one patient received BGS-649 through week 10, and one patient received BGS-649 through week eight.

**** One patient received placebo through week 12 of the trial, two patients received placebo through week 10, one patient received placebo through week seven and one patient received placebo through week six. Results from three patients randomly assigned to the placebo group who mistakenly received a dose of BGS-649 are excluded from this graph.

In addition, patients receiving a weekly dose of leflutrozole showed a trend towards an increase in LH and FSH levels in the treated group with a return to baseline by end of trial. These results in the treated group, suggest that the negative feedback loop controlling the gonadotropin levels in the HPT axis was not disrupted.

Summary of Safety Results

In the clinical trials conducted by Novartis, leflutrozole was well tolerated in the 131 treated patients, with no treatment-related serious adverse events. In the Phase 2 proof-of-concept trial in HH, there were 41 adverse events, 16 in the leflutrozole group and 25 in the placebo group. In the leflutrozole group, six of the adverse events were moderate and 10 were mild.

In Part 1 of the trial there were 59 adverse events, 16 of which were moderate and 43 of which were mild. These adverse events were transient and resolved spontaneously. Four patients reported

spontaneous penile erection, three patients reported an episode of a headache and two patients reported abnormal hair growth, which were suspected of being related to leflutrozole. Other common adverse events were oropharyngeal pain, nasal congestion, diarrhea, arthralgia, cough, dizziness and frequent bowel movements. There were no drug-related significant adverse events.

In Part 2 of the trial, the most common adverse events were lack of energy, headache, nasal congestion, somnolence, and spontaneous penile erection, which were distributed broadly across the leflutrozole and placebo groups. None of these adverse events occurred in more than three patients. Special safety parameters, including prostate specific antigen, haematocrit, hemoglobin, high-density lipoprotein, and bone turnover markers, showed no significant effect of leflutrozole. We are monitoring these parameters in the current trial.

A reproductive toxicology trial was also performed in rats to evaluate the risk of potential transference of leflutrozole in the semen, and no reproductive toxicology risk was identified. The maximum dosage would equate to a maximum of 4,700 times the human exposure, which should provide a significant safety margin.

Phase 2b Clinical Trial in Hypogonadotropic Hypogonadism

In March 2018, we announced top-line data from our Phase 2b clinical trial of leflutrozole for the treatment of HH in obese men. We enrolled 271 patients in the trial in the United States and Europe. The trial was a multi-center, randomized double-blind, dose-ranging, placebo-controlled trial of leflutrozole in obese males with HH with a BMI of over 30. Subjects were divided into four groups, with 71 receiving placebo and 67, 66 and 67, receiving the low, intermediate or high dose, respectively, of leflutrozole.

The primary endpoint of the trial was to measure the percentage of patients whose testosterone levels normalized. The trial was designed to detect whether at least 75% of patients had normalized testosterone levels at week 24.

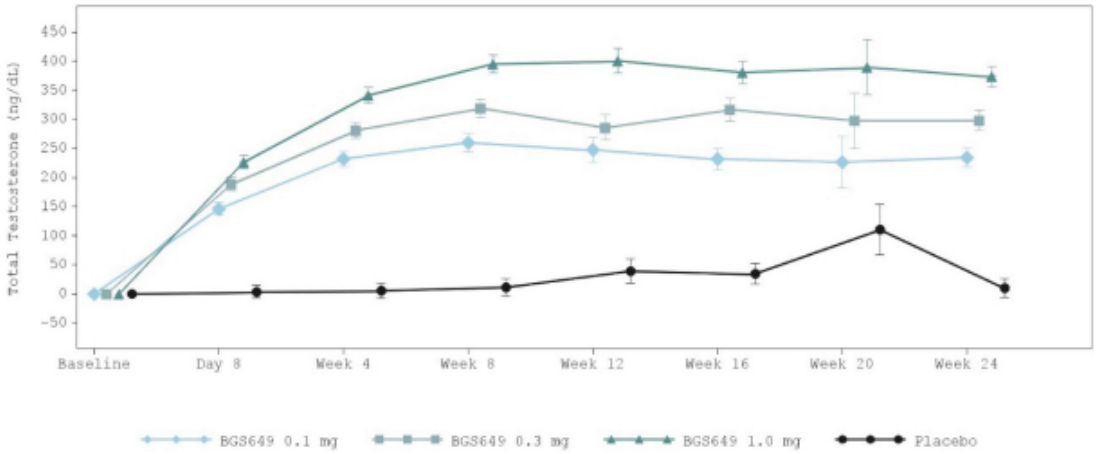
The secondary endpoints were:

- the ability of leflutrozole to normalize testosterone in at least 90% of patients;
- the effects of leflutrozole on LH and FSH; and
- the proportion of subjects that overshoot testosterone levels at 24 weeks.
- In addition, the trial was designed:
- to investigate the benefit on patient-reported outcomes (“PROs”), including the Patient-Reported Outcomes Measurement Information System (“PROMIS”), Brief Fatigue Inventory, PROMIS SexSF and International Index of Erectile Function, which examine the most common complaints HH patients present to a doctor, fatigue and sexual dysfunction;
- to assess the effects of leflutrozole on semen analysis (sperm count and motility), in a subset of patients; and
- to evaluate safety and tolerability, which included analysis of lipid profiles, haematocrit bone turnover markers, and bone mineral density measured by DXA score.

The trial involved a four-week screening phase followed by a 24-week treatment phase and a 12-week follow-up period. All doses of leflutrozole met the primary endpoint, normalizing total testosterone levels in over 75% of subjects after 24 weeks of treatment ($p<0.001$ versus placebo). Normalization of testosterone was observed at the first measurement following the initial dosing of leflutrozole at day 8 in more than 80% of subjects at all three doses. A dose response was also observed in absolute total testosterone levels and over the dosing period, with mean testosterone reaching 458.0 ng/dl (low dose), 512.5 ng/dl (intermediate dose) and 586.5 ng/dl (high dose). The

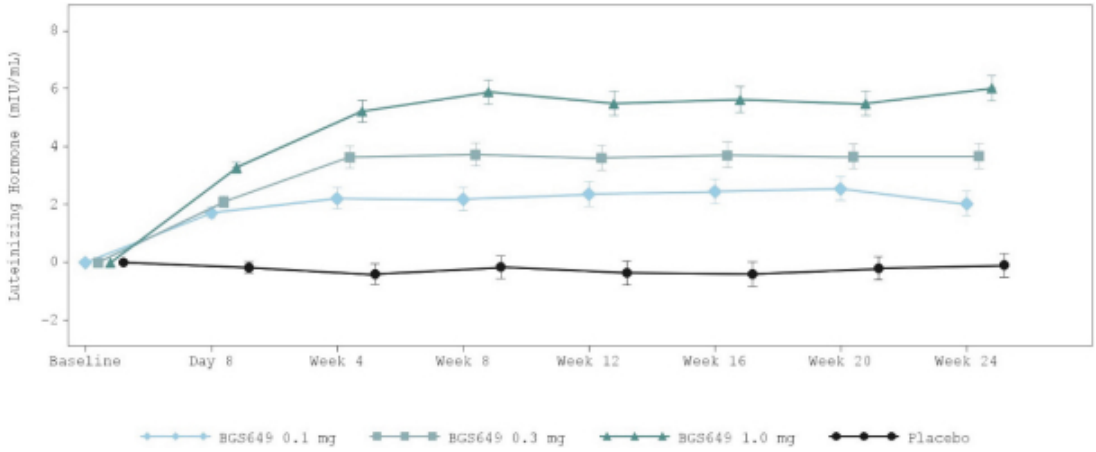
following graph illustrates the increase in mean total testosterone levels from baseline in patients in each of the three dosing arms of leflutrozole and receiving placebo.

Change from Baseline in Mean Total Testosterone

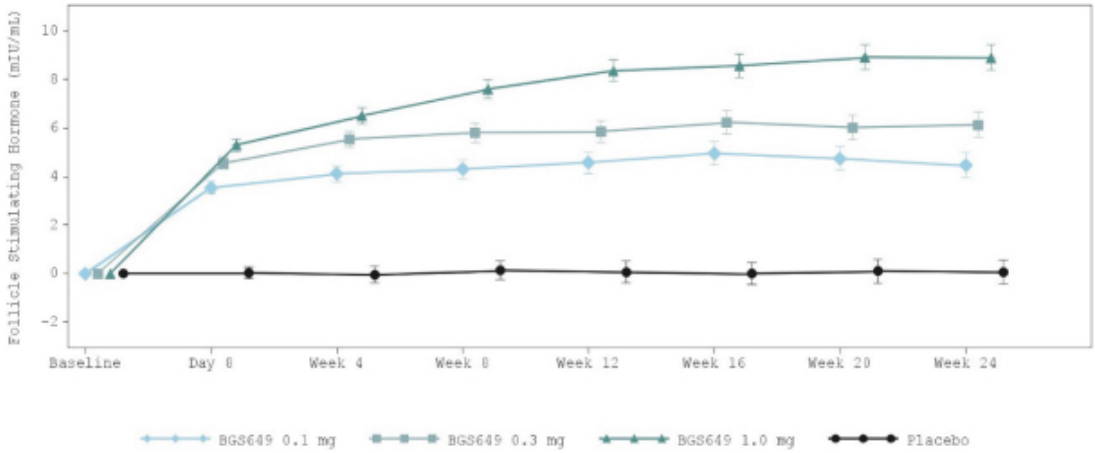


The two highest doses also met the secondary endpoint of normalizing testosterone in 90% of patients at week 24 with the lowest dose normalizing testosterone in 88% of patients at week 24. All three doses of leflutrozole met the remaining secondary endpoints, including the improvement of LH and FSH levels. A statistically significant increase in LH and FSH at all doses at week 24 ($p<0.001$ for each dose versus placebo) was observed, with an increase following initial dosing at day 8 and an observed dose response. The following graphs illustrate the increase in total LH and total FSH from baseline in patients in each of the three dosing arms of leflutrozole and receiving placebo.

Change from Baseline in Mean Total Luteinising Hormone



Change from Baseline in Mean Total Follicle Stimulating Hormone



The trial also showed an improvement in total motile sperm count across all three doses versus placebo with mean changes at week 20 of 70 million, 14 million and 58 million for the high, intermediate and low doses of leflutrozole, respectively, compared with a decrease of 23 million for placebo. Although the trial was not designed to detect statistical significance for this exploratory endpoint, a statistically significant improvement was shown at the highest dose of leflutrozole (p=0.03). No subjects on leflutrozole had testosterone levels greater than 1500 ng/dl at any time during the study.

In addition, a positive trend of treatment effect was observed at eight to 12 weeks for reduction of fatigue as measured by the PROMIS Brief Fatigue Inventory. The trial was not designed to detect statistical significance for this endpoint.

Leflutrozole was observed to be well tolerated during the trial. An increased incidence of elevated haematocrit levels was observed in each of the treatment arms of the trial, which is consistent with increasing testosterone levels.

Safety Extension Study to the Phase 2b Clinical Trial in Hypogonadotropic Hypogonadism

A subset of 143 patients entered into a six-month extension study to the Phase 2b Clinical Trial for leflutrozole, to gain long-term data on both efficacy and safety. 88 patients completed the additional six months of treatment.

The safety extension study was designed to examine if leflutrozole resulted in a pre-specified reduction in bone mineral density (BMD) at 48 weeks following the initial 24 weeks treatment. The primary end point of this safety extension study was decrease in bone mineral density. In December 2018, we reported positive results from the safety extension study for leflutrozole. The study was successful in demonstrating that none of the doses of leflutrozole met the lower bound (95% confidence interval) of the pre-specified safety criterion of a greater than 3% reduction in lumbar spine bone mineral density after 48 weeks of treatment. Consistent with this finding, none of the doses of leflutrozole met the secondary safety endpoint criterion of a greater than 3% reduction in bone mineral density in the hip (total or femoral neck). In addition, there was no shift into clinical categories of osteopenia or osteoporosis, with no evidence of development of new osteopenia.

Consistent with the top-line data announced by us in March 2018, treatment with leflutrozole resulted in normalization of total testosterone levels in over 75% of subjects at all three doses tested at

the end of the six months extension study period (this measure was the primary endpoint in the placebo-controlled portion of the trial). Similarly, normalization of testosterone in at least 90% of patients (a key secondary endpoint of the placebo-controlled portion of the trial) occurred at all three doses (versus at the two highest doses in the initial 6 months). All three doses also continued to meet all other secondary endpoints, including the improvement of testosterone LH and FSH levels. The extension study continued to demonstrate a clear dose-response in both the primary and secondary endpoints. There was an increased incidence of raised haematocrit levels in patients receiving leflutrozole and small increases in blood pressure at the two highest doses consistent with increasing testosterone.

Following the positive result of a safety extension study for leflutrozole, we convened an advisory board meeting and concluded that the future development of leflutrozole should focus on male infertility. We intend to develop a clinical and regulatory path accordingly. We intend to explore strategic options with third parties for the further development of leflutrozole.

Therapeutic Candidates Acquired in the Merger with OncoMed

Etigilimab (OMP-313M32) for the Treatment of Solid Tumors and Anti-PD1

We acquired etigilimab in the Merger with OncoMed. TIGIT (T-cell immunoreceptor with Ig and ITIM domains) is an inhibitory receptor and via interactions with its ligands may block T-cells from attacking tumor cells. The anti-TIGIT therapeutic candidate, etigilimab, is intended to activate the immune system, through multiple mechanisms, and enable anti-tumor activity. Etigilimab completed the single-agent Phase 1a portion of a Phase 1a/b clinical trial, which enrolled patients with advanced or metastatic solid tumors, and also completed enrollment of the Phase 1b portion of the clinical trial, which combined etigilimab with anti-PD1 (nivolumab).

The Phase 1a/b clinical trial enrolled patients with advanced solid tumors into either a Phase 1a single-agent portion (dose escalation in all patients and expansion in selected tumor types) or Phase 1b combination portion in selected tumor types with nivolumab (dose escalation). 23 patients were treated in the Phase 1a dose escalation portion of the study with doses up to 20mg/kg every two weeks and 10 patients were treated in the Phase 1b combination portion of the study at doses up to 20 mg/kg every two weeks in combination with nivolumab. Tumor types in the Phase 1a portion of the study were colorectal cancer (6 patients), endometrial cancer (4 patients), head & neck cancer (4 patients), pancreatic cancer (2 patients), triple negative breast cancer (2 patients) and five other tumor types and those included in the Phase 1b portion of the study included gastric cancer (3 patients) and seven other tumor types. No dose limiting toxicities were observed in the Phase 1a or 1b portions of the study and the recommended Phase 2 dose was the top dose of 20mg/kg biweekly. The only treatment-related adverse event with an incidence rate greater than 20% in the Phase 1a portion of the study was rash (39%), and the most common treatment-related adverse events in the Phase 1b portion of the study were rash (40%), fatigue (30%) and pruritus (20%). There was only one treatment-related serious adverse event in the Phase 1a portion (autoimmune hepatitis) and there were no treatment-related serious adverse events in the Phase 1b portion of the study. None of the patients in the Phase 1a portion had a response and 30% had stable disease. Ten percent of the patients in the Phase 1b portion had a response and 10% had stable disease. The study has now completed enrollment and a CSR is being drafted.

In preclinical studies with anti-TIGIT antibodies, immune activation and robust anti-tumor activity have been observed—both as a single agent and in combination with other cancer immunotherapeutics including anti-PD1. At the 2017 American Association of Cancer Research (“AACR”) meeting, preclinical data demonstrating the capacity of an anti-TIGIT antibody to induce long-term immune memory and durable anti-tumor response was presented. Also, at the 2018 AACR meeting data that showed that anti-TIGIT treatment reduced the abundance of regulatory T-cells

(Tregs) within tumors in animal models, and mechanistic studies demonstrated an important contribution of effector function for anti-tumor efficacy in animal models was presented.

The TIGIT program was previously subject to an exclusive license option with Celgene as part of the Collaboration Agreement. See "Business—Material Agreements—Collaboration Agreement with Celgene." In June 2019, we announced that Celgene had notified OncoMed that Celgene had decided, in light of strategic product portfolio considerations, not to exercise its option to license etigilimab. The Collaboration Agreement was terminated with respect to etigilimab effective on October 11, 2019. See "—Material Agreements—Collaboration Agreement with Celgene." As a result, we have worldwide rights to the etigilimab program.

Navicixizumab (OMP-305B83) for Treatment of Ovarian Cancer and Taxol

We acquired Navi in the Merger with OncoMed. Subsequently in January 2020, we out-licensed Navi to Oncologie. See "—Material Agreements—Licensing Agreement for Navicixizumab." In addition, Navi is the subject of the CVR Agreement which sets forth certain rights and obligations of us with respect to Navi. See "—Material Agreements—CVR Agreement Between Us and Computershare—The NAVI Milestones."

Material Agreements

Novartis Agreements

In July 2015, three of our wholly-owned subsidiaries, Mereo BioPharma 3 Limited, Mereo BioPharma 2 Limited, and Mereo BioPharma 1 Limited (the "Subsidiaries"), entered into asset purchase agreements (the "Purchase Agreements"), to acquire from Novartis rights to setrusumab, acumapimod, and leflutrozole (the "Compounds"), respectively, and certain related assets (together with the Compounds, the "Novartis Assets").

In connection with the acquisition of the Novartis Assets, we issued 3,849,000 ordinary shares to Novartis pursuant to a subscription agreement. See "Related Party Transactions—Subscription Agreement" for more information. In addition, we paid Novartis $1.5 million for a payment made by Novartis to a third party in full satisfaction of all monetary obligations of Novartis to such third party with respect to acumapimod. Under the Purchase Agreements, we have agreed to make tiered royalty payments to Novartis based on annual worldwide net sales of product candidates that include the Compounds (the "Acquired Novartis Product Candidates"), at percentages ranging from the high single digits to low double digits. In the event that the parties agree or it is otherwise determined in accordance with the Purchase Agreements that we require third-party intellectual property rights to exploit the Acquired Novartis Product Candidates, we are entitled to offset a specified percentage of amounts paid to such third parties in consideration for such intellectual property rights against the royalties due to Novartis. The royalty payments are payable for a period of ten years after the first commercial sale of an Acquired Novartis Product. We further agreed that in the event of a change in control that involves the transfer, license, assignment, or lease of all or substantially all of a Subsidiary's assets, including a Compound and related assets, we will pay Novartis a percentage of the proceeds of such transaction, with the majority of the proceeds being retained by us. No payment, however, is required with respect to any transaction of Mereo BioPharma Group plc involving its equity interests, a merger or consolidation of it, or a sale of any of its assets.

We granted Novartis an irrevocable, transferable, royalty-free, worldwide and non-exclusive license to use know-how included within the Novartis Assets for Novartis' activities unrelated to any Acquired Novartis Product Candidates. We have agreed to use commercially reasonable efforts to develop at least one Acquired Novartis Product. In addition, Novartis agreed to a three-year non-competition restriction in relation to clinical trial activities for the therapeutic treatment of HH in obese men in

respect of the leflutrozole Compound and sclerostin in respect of the BGS-804 Compound, subject to exceptions, including where Novartis does not have the ability to control such clinical trial activity and for any of Novartis' existing contracts or relationships.

We also entered into a sublicense agreement with Novartis (the "Sublicense Agreement"), pursuant to which Novartis granted us an exclusive, worldwide, royalty-bearing sublicense for certain therapeutic antibody product candidates directed against sclerostin (the "Antibody Product Candidates"), including setrusumab. Under the Sublicense Agreement, we have agreed to pay Novartis royalties in the low single digits on worldwide net sales of Antibody Product Candidates. Royalties will be payable on a country-by-country basis until the later of expiration of the last valid claim of the licensed patents covering the Antibody Product Candidates in a country and ten years after the first commercial sale of the Antibody Product Candidates in such country, with a maximum royalty term of 12 years after the first commercial sale of the Antibody Product Candidates in such country. We have also agreed to pay Novartis up to $3.25 million in development and regulatory milestones, and to use commercially reasonable efforts to develop and commercialize an Antibody Product. The Sublicense Agreement will expire on the earlier of the termination of the agreement under which Novartis is granting us a sublicense (the "Original License Agreement") and, on a product-by-product and country-by-country basis, the expiration of the royalty term with respect to such Antibody Product Candidate in such country. The Original License Agreement has a perpetual term and may be terminated for breach or upon a change in control of the licensing party. We may terminate the Sublicense Agreement upon written notice to Novartis and either party may terminate the Sublicense Agreement for the other party's uncured material breach or bankruptcy.

AstraZeneca Agreement

In October 2017, our wholly-owned subsidiary Mereo BioPharma 4 Limited entered into an exclusive license and option agreement (the "License Agreement"), to obtain from AstraZeneca an exclusive worldwide, sub-licensable license under AstraZeneca's intellectual property rights relating to certain product candidates containing a NE inhibitor, including product candidates that contain alvelestat, with an option to acquire such intellectual property rights following commencement of a pivotal trial and payment of related milestone payments (the "Option"), together with the acquisition of certain related assets.

Upon entering into the License Agreement, we made a payment of $3.0 million and issued 490,798 ordinary shares to AstraZeneca, for an aggregate upfront payment equal to $5.0 million. In connection with certain development and regulatory milestones, we have agreed to make payments of up to $115.5 million in the aggregate and issue additional ordinary shares to AstraZeneca for licensed product candidates containing alvelestat. In addition, we have agreed to make payments to AstraZeneca based on specified commercial milestones of the product candidate. In the event that we sub-license alvelestat, we have also agreed to pay a specified percentage of sublicensing revenue to AstraZeneca. Otherwise, we have agreed to make royalty payments to AstraZeneca equal to ascending specified percentages of tiered annual worldwide net sales by us or our affiliates of licensed product candidates (subject to certain reductions), ranging from the high single digits to low double digits. Royalties will be payable on a licensed product-by-licensed product and country-by-country basis until the later of ten years after the first commercial sale of such licensed product in such country and expiration of the last patent covering such licensed product in such country that would be sufficient to prevent generic entry. Under the License Agreement, we may freely grant sub-licenses to affiliates upon notice to AstraZeneca and we must obtain AstraZeneca's consent, not be unreasonably withheld, to grant sub-licenses to a third party. We have agreed to use commercially reasonable efforts to develop and commercialize at least one licensed product. In addition, we are generally responsible for costs related to the development and commercialization of the licensed products under the License Agreement.

The License Agreement will expire on the expiry of the last-to-expire royalty term with respect to all licensed product candidates. Upon the expiration of the royalty term for a licensed product in a particular country, the licenses to us for such product in such country will become fully-paid and irrevocable. Prior to exercise of the Option, if at all, we may terminate the License Agreement upon prior written notice. Either party may terminate the agreement upon prior written notice for the other party's material breach that remains uncured for a specified period of time or insolvency. AstraZeneca has agreed to a three-year non-competition restriction in relation to the direct or indirect commercialization or development of NE inhibitors for the treatment of AATD. In addition, AstraZeneca agreed not to assert any AstraZeneca intellectual property rights that were included in the scope of the License Agreement against us.

Collaboration Agreement with Celgene

In December 2013, OncoMed entered into the Collaboration Agreement with Celgene pursuant to which OncoMed and Celgene were to collaborate on research and development programs directed to the discovery and development of novel biologic therapeutics, and, if Celgene exercised its option to do so, the discovery, development and commercialization of novel small molecule therapeutics. We acquired OncoMed in the Merger.

OncoMed's etigilimab program was the last remaining biologic therapeutic program that was active under the Collaboration Agreement. Pursuant to the Collaboration Agreement, Celgene had an option to obtain an exclusive license to develop further and commercialize biologic therapeutics in the etigilimab program, which could be exercised during time periods specified in the Collaboration Agreement through the earlier of completion of a certain clinical trial or the twelfth anniversary of the date of the Collaboration Agreement. In turn, OncoMed agreed to lead the development of etigilimab prior to Celgene's exercise of the option for the program and was also responsible for funding all research and development activities for therapeutics in the etigilimab program prior to such exercise. OncoMed was eligible to receive a $35.0 million opt-in payment upon Celgene's exercise of the option for the etigilimab program. In addition, the Collaboration Agreement also included milestone payments for achievement of specified development, regulatory and commercial milestones which could have totaled up to $437.5 million (net of past milestone payments) for product candidates in the etigilimab program, including the $35.0 million opt-in payment. In addition, if the program had been successfully commercialized by Celgene, OncoMed would have been eligible to receive tiered royalties equal to a percentage of net product sales worldwide in the high-single digits to the mid-teens, subject to certain reductions.

In June 2019, we announced that Celgene had notified OncoMed that Celgene had decided, in light of strategic product portfolio considerations, not to exercise its option to license etigilimab. The Collaboration Agreement was terminated with respect to etigilimab effective on October 11, 2019. As a result, we have worldwide rights to the etigilimab program.

Navi was previously a part of the Collaboration Agreement, but the Collaboration Agreement was terminated with respect to Navi effective on January 23, 2019. As a result of this termination, we received worldwide rights to the Navi program, which we subsequently out-licensed to Oncologie. See "—Licensing Agreement for Navicixizumab."

Licensing Agreement for Navicixizumab

On January 13, 2020, we entered into a global license agreement with Oncologie for the development and commercialization of Navi, an anti-DLL4/VEGF bispecific antibody currently being evaluated in an ongoing Phase 1b study in combination with paclitaxel in patients with advanced heavily pretreated ovarian cancer. Navi previously completed a Phase 1a monotherapy study in patients with various types of refractory solid tumors and is one of two product candidates we acquired

through the Merger. In October 2019, the FDA granted Fast Track designation to Navi and has agreed in principle on the design of a study that could potentially support accelerated approval for Navi in a heavily pretreated, platinum-resistant ovarian cancer patient population.

Under the terms of the license agreement, Oncologie will receive an exclusive worldwide license to develop and commercialize Navi. We received an upfront payment of $4.0 million and will receive an additional payment of $2.0 million conditional on a CMC (Chemistry, Manufacturing and Controls) milestone. Oncologie will be responsible for all future research, development and commercialization of Navi. Additionally, we will be eligible to receive up to $300 million in future clinical, regulatory and commercial milestones, tiered royalties ranging from the mid-single-digit to sub-teen percentages on global annual net sales of Navi, as well as a negotiated percentage of sublicensing revenues from certain sublicensees.

As a consequence of the license agreement with Oncologie, and in accordance with the terms and conditions of the CVR Agreement, holders of CVRs pursuant to the CVR Agreement will be entitled to receive certain eligible cash milestone payments made to us under the license agreement relating to the development and commercialization of Navi. See "—CVR Agreement Between Us and Computershare."

CVR Agreement Between Us and Computershare

Following the closing of the Merger, OncoMed's stockholders received, in exchange for each outstanding share of OncoMed common stock owned immediately prior to the closing of the Merger (except for any dissenting shares): (1) a number of our ADSs determined by reference to an exchange ratio, and (2) one contingent value right (a "CVR"), representing the right to receive contingent payments if specified milestones are achieved within agreed time periods, subject to and in accordance with the terms and conditions of the Contingent Value Rights Agreement (the "CVR Agreement"), dated April 23, 2019 by and among Computershare, as rights agent, and us.

Except in limited circumstances, the CVRs may not be transferred, pledged, hypothecated, encumbered, assigned or otherwise disposed of.

Milestone Events and Payments

The CVR milestones relate to OncoMed's etigilimab and Navi therapeutic candidates, though the milestone relevant to etigilimab can no longer be achieved. The contingent payments would become payable to the rights agent, for subsequent distribution to the holders of the CVRs, upon the achievement of a milestone as follows:

The TIGIT Milestone

A payment, in the form of our ADSs, would have been made to CVR holders if, following April 23, 2019 but prior to December 31, 2019, Celgene had exercised its exclusive option granted by OncoMed to Celgene in relation to reaching a milestore of OncoMed's etigilimab product candidate pursuant to the Collaboration Agreement (the "TIGIT Milestore"), and OncoMed had actually received the cash payment payable by Celgene pursuant to such Celgene option exercise.

In June 2019, we announced that Celgene had notified OncoMed that Celgene had decided, in light of strategic product portfolio considerations, not to exercise its option to license etigilimab. The Collaboration Agreement was terminated with respect to etigilimab effective on October 11, 2019. See "—Collaboration Agreement with Celgene" above. As a result, no payments are expected to become due or payable to CVR holders pursuant to the TIGIT Milestone.

The NAVI Milestones

A cash payment will be made to CVR holders if, (1) within eighteen months following the closing of the Merger, we or any of our subsidiaries enters into a definitive partnership agreement, collaboration agreement, joint venture agreement, profit sharing agreement, license or sublicense agreement, asset sale agreement, stock sale agreement, investment agreement or similar agreement duly approved by our Board with one or more third parties regarding Navi, and (2) within five years of the closing of the Merger, we or any of our subsidiaries actually receives certain eligible cash milestone payments.

NAVI Subsidiary, Inc. ("NAVI Sub"), a wholly-owned subsidiary of OncoMed and an indirect wholly-owned subsidiary of our Company, has been established to hold all of our right, title and interest in and to Navi. For a period of 18 months following the closing of the Merger, we will permit certain individuals associated with NAVI Sub and identified on a confidential schedule to the CVR Agreement (the "NAVI Team") to (i) solicit third party interest with respect to a NAVI Agreement (as defined in the CVR Agreement), such that the NAVI Sub or a third party, as applicable, will advance Navi, and (ii) recommend, by written notice to the chief executive officer of our Company, that we enter into discussions with one or more such third parties that have expressed interest with respect to a NAVI Agreement; provided that, notwithstanding anything to the contrary in the CVR Agreement, we will have no obligation or liability to fund or otherwise support or incur any cost or expense relating to NAVI Sub or Navi in excess of the commitments provided for on a confidential schedule to the CVR Agreement (except in respect of clinical trials commenced prior to the date thereof).

The entry into a NAVI Agreement by us or any of our subsidiaries (including NAVI Sub) shall be subject to, and contingent upon, a determination by our Board, having consulted with outside counsel, that the NAVI Agreement is fair to, advisable and in the best interests of our Company and our shareholders. Without limiting the foregoing, neither us nor any of our subsidiaries (including NAVI Sub) shall be compelled to enter into any investment agreement, stock sale agreement, or similar agreement with respect to NAVI Sub or Navi if, immediately following the execution of such agreement, our Company or one or more of our subsidiaries (other than NAVI Sub) would hold less than 19.5% of the issued and outstanding equity interests of NAVI Sub on a fully-diluted basis.

Eligible cash milestone payments will include each cash milestone payment payable to our Company or one or more of our subsidiaries pursuant to a NAVI Agreement (or any agreement contemplated by such NAVI Agreement), except for any (i) royalty or similar sales-based payment that is measured, in whole or in part, by reference to the quantity of Navi that is produced or sold or the revenues (or a formula that makes reference to such revenues) derived therefrom and (ii) for the avoidance of doubt only, any fees for service, research and development funding, reimbursement of intellectual property filing, prosecution, litigation and maintenance-related expenses or reimbursement of manufacturing expenses received from a counterparty pursuant to a NAVI Agreement.

If a NAVI Milestone is achieved, holders of CVRs would be entitled to receive an amount in cash equal to 70% of the aggregate principal amount actually received by us or one or more of our subsidiaries (other than NAVI Sub), net of (A) any tax (including any applicable value added or sales taxes and including any tax which would be payable but for the utilization of a relief), (B) 50% of any expenditure by us or our subsidiaries pursuant to the budget set forth on a confidential schedule to the CVR Agreement, and (C) any other reasonable cost or expense attributable to the receipt of such payment (which, for the avoidance of doubt, shall include (x) any costs, reasonable out-of-pocket fees, expenses or charges incurred by us or our subsidiaries in excess of the commitments provided for in the budget set forth on a confidential schedule to the CVR Agreement, (y) any costs, reasonable out-of-pocket fees, expenses or charges incurred by us or our subsidiaries under the NAVI Agreement,

and (z) any costs, reasonable out-of-pocket fees, expenses or charges incurred by us or our subsidiaries, or for which our Company or one or more of our subsidiaries is responsible, in connection with the preparation, negotiation and execution of the relevant NAVI Agreement, in each case to the extent such costs, out-of-pocket fees, expenses or charges have not been previously accounted for in the calculation of a prior NAVI Milestone payment).

The NAVI milestone payments are subject to a cash consideration cap, pursuant to which the aggregate principal amount of all cash payments made to holders of CVRs by us shall in no case exceed $79.7 million. If the aggregate principal amount to be paid to holders of CVRs by us pursuant to the CVR Agreement would, together with the aggregate principal amount of any prior such cash payments, otherwise exceed $79.7 million, then the applicable NAVI Milestone payment will be appropriately reduced.

If a NAVI Milestone occurs at any time prior to the fifth anniversary of the closing of the Merger, and on each such occurrence, then, thirty days following the achievement thereof, our Company, or a person nominated by us (with written notice thereof from us to the rights agent), as the case may be, will deliver to the rights agent (i) a certificate certifying the date of satisfaction of the applicable NAVI Milestone and that the holders of CVRs are entitled to receive a NAVI Milestone payment, and (ii) the applicable NAVI Milestone payment, by wire transfer of immediately available funds to an account designated by the rights agent. Upon receipt of the wire transfer referred to in the foregoing sentence, the rights agent will promptly (and in any event, within 10 business days) pay, by check mailed, first-class postage prepaid, to the address of each holder set forth in the CVR Register at such time or by other method of delivery as specified by the applicable holder in writing to the rights agent, an amount in cash equal to the product determined by multiplying (A) the quotient determined by dividing (x) the applicable NAVI Milestone payment by (y) the total number of CVRs registered in the CVR Register at such time, by (B) the number of CVRs registered to such holder in the CVR Register at such time.

The receipt of the upfront milestone payment of $4.0 million by us under the Navi License Agreement with Oncologie in January 2020 will result in a payment to CVR holders of approximately 1.2 cents per CVR, a total of approximately $462,748 (after deductions of costs, charges and expenditures). It is expected this distribution will be made to CVR holders by March 17, 2020.

CVR Agreement Between OncoMed and Computershare

On March 14, 2019, OncoMed entered into a Contingent Value Rights Agreement, by and between OncoMed and Computershare (the “OncoMed CVR Agreement”). As a result of the Merger, OncoMed became a wholly-owned indirect subsidiary of our Company.

Pursuant to the OncoMed CVR Agreement, each holder of OncoMed common stock as of the close of business on April 5, 2019, received one contingent value right (each, an “OncoMed CVR”) for each share of OncoMed common stock held by such stockholder as of such date. The OncoMed CVRs each represented the non-transferable contractual right to receive cash payments from OncoMed upon the actual receipt by OncoMed or its affiliates of certain contingent cash payments from Celgene in respect of the achievement of specified approval and sales milestones or the payment of royalties pursuant to the Collaboration Agreement in connection with OncoMed’s etigilimab therapeutic candidate. As stated above, in June 2019, Celgene notified OncoMed, pursuant to the Collaboration Agreement, of Celgene’s decision not to exercise its option to license etigilimab. See “—Collaboration Agreement with Celgene.” As a result, no payments are expected to become due or payable to OncoMed CVR holders pursuant to the TIGIT Milestone.

Aspire Capital Transaction

On February 10, 2020, we entered into a Purchase Agreement with Aspire Capital, which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is

committed to purchase up to an aggregate of $25.0 million worth of our ordinary shares that are exchangeable for ADSs over the approximately 30-month term of the Purchase Agreement. In addition, pursuant to the Purchase Agreement, Aspire Capital purchased 11,432,925 ordinary shares that are exchangeable for 2,286,585 ADSs for $3.0 million. In consideration for entering into the Purchase Agreement, concurrently with the execution of the Purchase Agreement, we paid Aspire Capital a commission fee of $300,000, which was wholly satisfied by the issuance to Aspire Capital of 2,862,595 ordinary shares that are exchangeable for 572,519 ADSs. See “The Aspire Capital Transaction.”

Boxer Capital Private Placement

On February 19, 2020, we entered into a securities purchase agreement with Boxer Capital. Under the terms of the agreement, Boxer Capital agreed to make an investment of $3.0 million to purchase 12,252,715 ordinary shares (equivalent to 2,450,543 ADSs) at a price equivalent to 18.8 pence per ordinary share, which represented a 20% discount to our closing share price of 23.5 pence on AIM on February 18, 2020. We intend to use the net proceeds from this private placement for general corporate purposes, including clinical trial activity and working capital. There are no warrants, derivatives, or other share classes associated with this transaction. Further, there are no restrictions on future financings and there are no financial covenants, participation rights, rights of first refusal, or penalties in the purchase agreement entered into in connection with this transaction.

Manufacturing

We do not own or operate manufacturing facilities for the production of our product candidates, nor do we have plans to develop our own manufacturing operations in the foreseeable future. We have entered into manufacturing agreements with a number of drug substance, drug product, and other manufacturers and suppliers for setrusumab, acumapimod, leflutrozole, and etigilimab and we intend to enter into additional manufacturing agreements as necessary. Following our license of alvelestat, we acquired certain clinical trial materials and we plan to outsource production of further clinical supplies to our own manufacturing suppliers. We also intend to outsource certain product formulation trials. We expect that drug product pre-validation and validation batches will be manufactured to satisfy regulatory requirements where we progress product candidates to late stage trials.

We intend to enter into contractual relationships for the manufacture of commercial supplies for setrusumab and alvelestat. Any batches of product candidates for commercialization will need to be manufactured in facilities, and by processes, that comply with the requirements of the FDA, the EMA, and the regulatory agencies of other jurisdictions in which we are seeking approval. We employ internal resources to manage our manufacturing contractors and ensure they are compliant with current good manufacturing practices.

Commercialization, Sales and Marketing

We do not have our own marketing, sales, or distribution capabilities. In order to commercialize our rare disease product candidates, if approved for commercial sale, we must either develop a sales and marketing infrastructure or collaborate with third parties that have sales and marketing experience. For setrusumab and alvelestat, if approved, and for any future product candidates for rare diseases, we intend either to establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize or co-commercialize these product candidates in major markets or potentially to outsource aspects of these functions to third parties or partners. We intend to seek to enter into one or more strategic relationships with third parties for our non-rare disease product candidates, acumapimod, leflutrozole and etigilimab to undertake the next phase of clinical development and, if approved, for commercialization.

Competition

We compete directly with other biopharmaceutical and pharmaceutical companies that focus on the treatment of OI, AATD, AECOPD or HH, as well as those that address solid tumor cancers and

hematologic cancers. We may also face competition from academic research institutions, governmental agencies and other various public and private research institutions. We expect to face increasingly intense competition as new technologies become available. Any product candidates, including setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

We consider setrusumab's current closest potential competitors in development for the treatment of OI to be Amgen's denosumab (Prolia) an anti-resorptive agent, and Amgen and UCB's anti-sclerostin antibody, romosozumab (Evenity), which was approved in the United States in April 2019 for osteoporosis. The FDA, however, required a Black Box warning that there may be an increase in risk of MI, stroke or cardiovascular death and that Evenity should not be initiated in patients who have had an MI or stroke in the last year. We believe that there is no increased risk of MI or stroke for patients with severe OI and the patient population we are studying is younger, with a mean age in the MBPS205 study of 44 years in the adult study and a maximum age of 17 will be allowed in the pediatric study. In the adult study there have been no events of MI or stroke, or other ischaemic pathology. In June 2019, the EMA's CHMP adopted a negative opinion recommending the refusal of a marketing authorization for Evenity. However, Amgen and UCB announced in October 2019 that following a re-examination procedure the CHMP has adopted a positive opinion recommending marketing authorization for Evenity. The CHMP's recommendation will now be reviewed by the European Commission and a decision is expected by year-end 2019. In addition, Jiangsu Hengrui has commenced Phase 1 development of an anti-sclerostin antibody for osteoporosis, and Transcenta Holding has licensed the anti-sclerostin antibody blosozumab from Lilly and plans to develop it for osteoporosis. Additionally, Bone Therapeutics is developing osteoblastic cell therapy product candidates. Baylor College of Medicine is also conducting a Phase 1 open label trial of fresolimumab, a TGF-B inhibitor, in adult OI patients.

We consider alvelestat's current closest potential competitors for the treatment of severe AATD to be alpha1-proteinase inhibitors that are administered intravenously in AAT augmentation therapy.

Currently, there are four inhibitors on the market in the United States and the EU: Grifols' Prolastin-C, Shire's Aralast, CSL's Zemaira and Kamada's Glassia. Kamada is also investigating an inhaled version of augmentation therapy, InhibRx is in Phase 1 development of INBRX-101, a recombinant human alpha-1 antitrypsin Fc fusion protein (rhAAT-Fc) for replacement therapy and Apic Bio is in the early stages of developing gene-therapy approaches for AATD. Vertex has a small molecule corrector program for AATD with VX-814 and VX-864 in Phase 1 development. Santhera has in-licensed an inhaled NE inhibitor and is planning a multiple ascending dose study, with the initial indication targeted being CF; and CHF-6333 is an inhaled human NE inhibitor in Phase 1 development by Chiesi for the treatment of non-cystic fibrosis bronchiectasis and CF.

The current standard of care for AECOPD involves steroids, antibiotics and bronchodilators; however, we are not aware of any drugs specifically approved for the treatment of AECOPD to reduce recurrent AECOPDs. There are a number of product candidates currently in development, with Verona Pharma, GlaxoSmithKline, and AstraZeneca each conducting Phase 2 clinical trials of drugs for the treatment of COPD. In addition, Pulmatrix has PUR1800, a NSKI expected to begin a Phase 1b for AECOPD in 2020. We consider acumapimod's current closest potential competitor in development for the treatment of AECOPD to be Verona Pharma's RPL554, a PDE3 / PDE4 dual inhibitor that is currently being developed as a bronchodilator and anti-inflammatory agent for COPD and asthma patients.

We consider leflutrozole's current closest potential competitors for the treatment of HH to be TRT. These include Androgel from AbbVie, and Lilly's Axiron, both administered transdermally by applying a

gel formulation, which are approved in the United States and Europe, Andriol from Merck, an oral testosterone therapy, which is approved in Europe but not in the United States and Jatenzo from Clarus approved in the United States in March 2019. There are also other approved TRT product candidates that are administered via injection and other oral TRTs that are still in the development or registration stages, such as Tlando from Lipocine. The FDA held advisory committee meetings in January 2018 for Tlando. On May 9, 2018, Lipocine announced that it had received a complete response letter from the FDA and on May 14, 2019, Lipocine announced the acceptance of the NDA for Tlando. Lipocine has also announced an injunction against Clarus for its product Jatenzo.

We consider etigilimab's competitors to be existing cancer treatments such as the commercially available immuno-oncology agents (e.g., Yervoy, Keytruda, and Opdivo), chemotherapeutic agents, and antibody based therapeutics such as Avastin and Erbitux. In addition, other potential competitors include several other etigilimab agents (e.g., those currently being developed by Genentech (Roche), Merck, Bristol-Myers Squibb or BMS, and Arcus Biosciences) and investigational immuno-oncologic agents against other targets. There are established pharmaceutical and biotechnology companies that are known to be involved in oncology research.

We may face increasing competition for additional new product acquisitions from pharmaceutical companies as new companies emerge with a similar business model and other more established companies focus on acquiring product candidates to develop their pipelines. Many of our competitors have significantly greater name recognition, financial, manufacturing, marketing, drug development, technical and human resources than we do. Mergers and acquisitions in the biopharmaceutical and pharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining top qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials and in acquiring technologies complementary to, or necessary for, our programs.

The key competitive factors affecting the success of setrusumab, alvelestat, acumapimod, leflutrozole and etigilimab, if approved, are likely to be their efficacy, safety, dosing convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, the level of generic competition and the availability of reimbursement from government and other third-party payors.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize product candidates that are safer, more effective, less expensive, more convenient or easier to administer, or have fewer or less severe side effects than any product candidates that we may develop. Our competitors may also obtain FDA, EMA or other regulatory approval for their product candidates more rapidly than we may obtain approval for our own product candidates, which could result in our competitors establishing a strong market position before we are able to enter the market. Even if setrusumab, alvelestat, acumapimod, leflutrozole or etigilimab achieve marketing approval, they may be priced at a significant premium over competing product candidates if any have been approved by then.

Intellectual Property

We have acquired or exclusively licensed our intellectual property portfolio from Novartis, OncoMed and AstraZeneca. We strive to protect and enhance the proprietary technologies, inventions and improvements that we believe are important to our business, including seeking, maintaining and defending patent rights, whether developed internally or acquired or licensed from third parties. Our policy is to seek to protect our proprietary position by, among other methods, pursuing and obtaining patent protection in the United States and in jurisdictions outside of the United States related to our

proprietary technology, inventions, improvements, platforms and our product candidates that are important to the development and implementation of our business.

Our intellectual property is held by Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited, Mereo BioPharma 3 Limited, Mereo BioPharma 4 Limited and OncoMed, each of which is a wholly-owned subsidiary of our Company and holds the intellectual property for our product candidates acumapimod, leflutrozole, setrusumab, alvelestat and etigilimab respectively. As of March 1, 2020 and following the Merger, our patent portfolio comprises approximately 553 issued patents and approximately 184 pending patent applications on a global basis.

Setrusumab (BPS-804)

As of March 1, 2020, our patent portfolio relating to our product setrusumab consisted of three issued U.S. patents, three pending U.S. patent applications, 86 issued foreign patents, 26 pending foreign patent applications and one pending international patent application filed under the Patent Cooperation Treaty ("PCT"). These issued patents and patent applications, if issued, include claims directed to the setrusumab antibody as well as nucleic acids encoding the antibody and the antibody's use as a medicament; the use of anti-sclerostin antibodies in the treatment of OI; the use of the setrusumab antibody in the treatment of OI with a specific dosing regimen; and use of a sclerostin antagonist in the treatment of a myopathy with expected expiry dates between 2028 and 2039.

The patent portfolio relating to our product setrusumab includes three patent families:

- The first of these patent families relates to the setrusumab antibody as well as nucleic acids encoding the antibody and the antibody's use as a medicament. As of March 1, 2020, this patent family included issued patents in Algeria, Argentina, Australia, Canada, China, Colombia, Europe (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom), the Gulf Cooperation Council countries, Hong Kong, India, Indonesia, Israel, Japan, Macau, Mexico, New Zealand, Russia, Singapore, South Africa, South Korea and the United States. We expect issued patents in this family to expire in 2028.
- The second of these patent families relates to the use of anti-sclerostin antibodies in the treatment of OI and the use of the setrusumab antibody in the treatment of OI at a specific dosing regimen. As of March 1, 2020, this patent family included three pending U.S. patent applications and 22 pending foreign patent applications. We expect patents in this family, if issued, to expire in 2036.
- The third of these patent families relates to the use of an anti-sclerostin antagonist in the treatment of a myopathy. As of March 1, 2020, this patent family included one pending international patent application filed under the PCT. We expect patents in this family, if issued, to expire in 2039.

Alvelestat (MPH-966)

As of March 1, 2020, our patent portfolio relating to our product candidate alvelestat consisted of three issued U.S. patents, no pending U.S. patent applications, 35 issued or allowed foreign patents and three pending foreign patent applications. These patents have all been licensed under our agreement with AstraZeneca. See "Business—Material Agreements—AstraZeneca Agreement." These issued patents and patent applications, if issued, include claims directed to 2-pyridone derivatives as NE inhibitors and their uses as well as claims to polymorphs of the tosylate salt of a 5-pyrazolyl-2-pyridone derivative, with expected expiry dates between 2024 and 2030. Our patent portfolio relating to our product candidate alvelestat also includes two pending foreign

applications which have been filed subsequent to the license agreement with AstraZeneca. These patent applications, if issued, include claims directed to dosage regimens of alvelestat with expected expiry dates in 2040.

Finally, our patent portfolio relating to our product candidate alvelestat includes one pending U.S. patent application which has been filed subsequent to the license agreement with AstraZeneca. This patent application, if issued, includes claims directed to methods of treatment using alvelestat with expected expiry date of 2040.

The patent portfolio relating to our product candidate alvelestat includes four patent families:

- The first of these patent families relates to 2-pyridone derivatives as NE inhibitors and their use. As of March 1, 2020, this patent family included issued patents in Australia, Brazil, Canada, China, Europe (France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom), Hong Kong, India, Japan, Mexico, Russia, South Korea and the United States. We expect issued patents in this family to expire in 2024.
- The second of these patent families relates to polymorphs of the tosylate salt of a 5-pyrazolyl-2-pyridone derivative. As of March 1, 2020, this patent family included issued patents in Australia, Canada, China, Europe (France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom), Hong Kong, Japan, Mexico, Russia and the United States. We expect issued patents in this family to expire in 2030.
- The third of these patent families relates to dosage regiments of alvelestat. As of March 1, 2020, this patent family included two pending U.K. patent applications. We expect patents in this family, if issued, to expire in 2040.
- The fourth of these patent families relates to methods of treatment using alvelestat. As of March 1, 2020, this family included one pending U.S. patent application. We expect patents in this family, if issued, to expire in 2040.

Acumapimod (BCT-197)

As of March 1, 2020, our patent portfolio relating to our product acumapimod consisted of 6 issued U.S. patents, 5 pending U.S. patent applications, 136 issued and allowed foreign patents, 44 pending foreign applications, and five pending international patent applications filed under the PCT. These issued patents and patent applications, if issued, include claims directed to 5-membered heterocycle-based p38 kinase inhibitors, the use of a pyrazole derivative in the treatment of AECOPD, dosage regimens of acumapimod, the use of acumapimod in the treatment of specific patient subpopulations, methods of producing specific polymorphs of acumapimod and synthetic methods of production of acumapimod with expected expiry dates between 2024 and 2038.

The patent portfolio relating to our product acumapimod includes six patent families:

- The first of these patent families relates to the key composition per se and other 5-membered heterocycle-based p38 kinase inhibitors. As of March 1, 2020, this patent family included issued patents in Algeria, Australia, Brazil, Canada, China, Colombia, Europe (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Monaco, Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey and United Kingdom), Hong Kong, India, Indonesia, Israel, Japan, Malaysia, Mexico, New Zealand, Norway, Russia, Singapore, South Africa, South Korea and the United States. We expect issued patents in this family to expire in 2024.
- The second of these patent families relates to the use of pyrazole derivatives in the treatment of AECOPD. As of March 1, 2020, this patent family included issued patents in Algeria,

Australia, Canada, China, Europe (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Germany, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Norway and United Kingdom,), Hong Kong, Indonesia, Israel, Japan, Mexico, New Zealand, Philippines, Russia, Singapore, South Africa, South Korea, Taiwan, the United Arab Emirates and the United States. We expect issued patents in this family to expire in 2033.

- The third of these patent families relates to dosage regimens of acumapimod. As of March 1, 2020, this patent family included one granted U.S. patent application, two granted foreign patent applications and 14 pending foreign patent applications. We expect patents in this family, if issued, to expire in 2036.
- The fourth of these patent families relates to specific polymorphs of acumapimod. As of March 1, 2020, this patent family included two pending U.S. patent applications and 26 pending foreign patent applications. We expect patents in this family, if issued, to expire in 2037.
- The fifth of these patent families relates to novel regimes for the prevention of AECOPD and the use of acumapimod in a specific patient subpopulation. As of March 1, 2020, this patent family included two PCT patent applications. We expect patents in this family, if issued, to expire in 2038.
- The sixth of these patent families relates to synthetic methods for the production of acumapimod. As of March 1, 2020, this patent family included three PCT patent applications. We expect patents in this family, if issued, to expire in 2039.

Leflutrozole (BGS-649)

As of March 1, 2020, our patent portfolio relating to our product leflutrozole consisted of four issued U.S. patents, one pending U.S. patent application, 90 issued foreign patents, and 11 pending foreign patent applications. These issued patents and patent applications, if issued, include claims directed to leflutrozole formulations the use of leflutrozole in treating hypogonadism according to a specific dosing regimen and combination drug regimens of leflutrozole, with expected expiry dates between 2032 and 2040.

The patent portfolio relating to our product leflutrozole includes three patent families:

- The first of these patent families relates to leflutrozole formulations and to the use of leflutrozole in treating hypogonadism according to a specific dosing regimen. As of March 1, 2020, this patent family included issued patents in Algeria, Australia, Brazil, Canada, China, Europe (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Norway, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and United Kingdom), GCC, Hong Kong, Indonesia, Israel, Japan, Mexico, New Zealand, Russia, Singapore, South Africa, South Korea and the United States. We expect issued patents in this family to expire in 2032.
- The second of these patent families relates to the use of leflutrozole in treating endometriosis according to a specific dosing regimen. As of March 1, 2020, this patent family included one pending U.S. patent application and three pending foreign patent applications. We expect patents in this family, if issued, to expire in 2037.
- The third of these patent families relates to combination drug regimens of leflutrozole. As of March 1, 2020, this patent family included two pending U.K. national patent applications. We expect patents in this family, if issued, to expire in 2040.

Etigilimab (OMP-313M32)

As of March 1, 2020, following the Merger, our patent portfolio relating to our therapeutic candidate etigilimab consisted of two granted U.S. patents and one pending U.S. patent application, as well as corresponding patent applications in major foreign jurisdictions.

The patent portfolio relating to our therapeutic candidate etigilimab contains one core patent family that covers the product per se as well as medical uses thereof. Patents that issue from this core family are generally expected to expire in 2036.

The portfolio also includes a second patent family that relates to specific methods of treatment using etigilimab. This patent family currently consists of one pending U.S. application, one granted foreign patent application and 12 pending foreign patent applications. Any patents that issue from this family are generally expected to expire in 2037.

Navicixizumab (OMP-305B83)

As of March 1, 2020, following the Merger, our patent portfolio relating to Navi consisted of 16 issued U.S. patents and six pending U.S. patent applications, as well as corresponding patents or patent applications in major foreign jurisdictions.

The patent portfolio relating to Navi contains two core patent families, both of which cover the product per se as well as medical uses thereof. Patents and patent applications, if issued, in these core families are expected to expire between 2030 and 2032.

The portfolio also includes several other patent families including issued U.S. and foreign patents and pending applications that relate to specific methods of treatment using Navi. Patents and patent applications, if issued, in these families are expected to expire between 2030 and 2039.

Individual patents extend for varying periods depending on the date of filing of the patent application or the date of patent issuance and the legal term of patents in the countries in which they are obtained. Generally, patents issued for regularly filed applications in the United States are granted a term of 20 years from the earliest effective non-provisional filing date. In addition, in certain instances, a patent term can be extended to recapture a portion of the USPTO delay in issuing the patent as well as a portion of the term effectively lost as a result of the FDA regulatory review period. However, as to the FDA component, the restoration period cannot be longer than five years and the total patent term including the restoration period must not exceed 14 years following FDA approval. The duration of foreign patents varies in accordance with provisions of applicable local law, but typically the duration of foreign issued patents is also 20 years from the earliest effective filing date. However, the actual protection afforded by a given patent varies on a product-by-product basis and from country to country, dependent on many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

In addition to patent protection, we also rely upon trademarks, trade secrets and know-how, and continuing technological innovation, to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our collaborators, employees and consultants and invention assignment agreements with our employees. We also have confidentiality agreements or invention assignment agreements with our collaborators and selected consultants. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be

independently discovered by competitors. To the extent that our collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Our commercial success will also depend in part on not infringing upon the proprietary rights of third parties. It is uncertain whether the issuance of any third-party patent would require us to alter our development or commercial strategies, or our product candidates or processes, obtain licenses or cease certain activities. Our breach of any license agreements or failure to obtain a license to proprietary rights that we may require to develop or commercialize our product candidates may have an adverse impact on us. If third parties have prepared and filed patent applications prior to March 16, 2013 in the United States that also claim technology to which we have rights, we may have to participate in interference proceedings in the USPTO, to determine priority of invention. For more information, please see "Risk Factors—Risks Related to Intellectual Property."

Government Regulation

Among others, the FDA, the EMA, U.S. Department of Health and Human Services Office of Inspector General, CMS and comparable regulatory authorities in state and local jurisdictions and in other countries impose substantial and burdensome requirements upon companies involved in the clinical development, manufacture, marketing and distribution of drugs such as those we are developing. These agencies and other federal, state and local entities regulate, among other things, the research and development, testing, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion, distribution, post-approval monitoring and reporting, sampling and export and import of our product candidates.

U.S. Government Regulation

In the United States, the FDA regulates drugs under the FDCA and its implementing regulations, and biological product candidates ("biologics"), under both the FDCA and the PHSA and its implementing regulations.

The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a drug or biologic may be marketed in the United States generally involves the following:

- completion of pre-clinical laboratory tests, animal studies and formulation studies in compliance with the FDA's GLP regulations;
- submission to the FDA of an investigational new drug application (an "IND"), which must become effective before human clinical trials may begin;
- approval by an IRB at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with GCP requirements to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of an NDA or BLA;
- satisfactory completion of an FDA advisory committee review, if applicable;

- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of potential FDA audits of clinical trials sites and the sponsor's clinical trial records to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees, if applicable, and FDA review and approval of the NDA or BLA; and
- compliance with any post-approval requirements, including the potential requirement to implement a REMS and the potential requirement to conduct post-approval studies.

Pre-clinical Studies

Pre-clinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. The conduct of the pre-clinical tests must comply with federal regulations and requirements, including GLPs. An IND sponsor must submit the results of the pre-clinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some pre-clinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

Clinical trials involve the administration of the investigational new drug or biologic to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives or endpoints of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB must review and approve the plan for a clinical trial. This can be a central or local IRB. In the case of a central IRB a single IRB will be the source of record for all sites in a trial; otherwise, a local IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health for public dissemination on their website, www.clinicaltrials.gov.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- Phase 1: The product is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.
- Phase 2: The product is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- Phase 3: The product is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product has been associated with unexpected serious harm to patients.

Special FDA Expedited Review and Approval

The FDA has various programs, including fast track designation, breakthrough therapy designation, accelerated approval, and priority review, which are intended to expedite or simplify the process for the development and FDA review of drugs and biologics that are intended for the treatment of serious or life-threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs and biologics to patients earlier than under standard FDA review procedures.

To be eligible for a fast-track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need by providing a therapy where none exists or a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. Fast-track designation provides opportunities for frequent interactions with the FDA review team to expedite development and review of the product. The FDA may also review sections of the NDA or BLA for a fast-track product on a rolling basis before the complete application is submitted, if the sponsor and FDA agree on a schedule for the submission of the application sections, and the sponsor pays any required user fees upon submission of the first section of the NDA or BLA.

In addition, under the provisions of the Food and Drug Administration Safety and Innovation Act passed in July 2012, a sponsor can request designation of a product as a "breakthrough therapy." A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug or biologic may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs or biologics designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Product candidates studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality ("IMM") that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a product receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on IMM or other clinical endpoint, and the product may be subject to accelerated withdrawal procedures.

Once an NDA or BLA is submitted for a product intended to treat a serious condition, the FDA may assign a priority review designation if the FDA determines that the product, if approved, would provide a significant improvement in safety or effectiveness. Under priority review, the FDA must review an

application in six months, compared to 10 months for a standard review. Most product candidates that are eligible for fast-track or breakthrough therapy designation are also likely to be considered appropriate to receive a priority review.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Furthermore, fast-track designation, breakthrough-therapy designation, accelerated approval and priority review do not change the standards for approval and may not ultimately expedite the development or approval process.

Priority Review Voucher Program

This FDA Priority Review Voucher program is intended to encourage development of new drug and biological products for prevention and treatment of certain rare pediatric diseases. Under this program, a sponsor who receives an approval for a drug or biologic designated as a “rare pediatric disease” may qualify for a voucher that can be redeemed to receive a priority review of a subsequent marketing application for a different product. Priority review means that the FDA aims to render a decision in six months. The sponsor receives the priority review voucher upon approval of the rare pediatric disease product application and it can be sold or transferred.

Orphan Product Designation and Exclusivity

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic product if it is intended to treat a rare disease or condition (generally meaning that it affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product). A company must request orphan product designation before submitting an NDA or BLA. If the request is granted, the FDA will publicly disclose the identity of the therapeutic agent and its potential use. We have been granted orphan product designation by the FDA for our product setrusumab for the treatment of OI. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product with orphan status receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product is entitled to orphan-product exclusivity. Orphan-product exclusivity means that the FDA may not approve any other applications for the same product for the same indication for seven years, except in certain limited circumstances. If a product designated as an orphan product ultimately receives marketing approval for an indication broader than what was designated in its orphan-product application, it may not be entitled to exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan indication or disease as long as the product candidates contain different active ingredients. Moreover, competitors may receive approval of different product candidates for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the pre-clinical studies and clinical trials, together with detailed information relating to the product’s chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of

an NDA or BLA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA or BLA is subject to a substantial application user fee. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act ("PDUFA") for new molecular entity NDAs and original BLAs, the FDA has 10 months from the filing date in which to complete its initial review of a standard application and respond to the applicant, and six months from the filing date for an application with priority review. The FDA does not always meet its PDUFA goal dates, and the review process is often significantly extended by FDA requests for additional information or clarification. This review typically takes 12 months from the date the NDA or BLA is submitted to the FDA because the FDA has approximately two months to make a "filing" decision.

In addition, under the Pediatric Research Equity Act of 2003, as amended and reauthorized, certain NDAs, BLAs or supplements to an NDA or BLA must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA may also require submission of a REMS plan if it determines that a REMS is necessary to ensure that the benefits of the product outweigh its risks. Depending on the specific serious risk(s) to be addressed, the FDA may require that the REMS include a medication guide or patient package insert, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs and BLAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an application for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an application to determine, among other things, whether the drug is safe and effective (for biologics, the standard is referred to as safe, pure and potent) and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug or biologic candidate to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an application, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an application, the FDA may inspect the sponsor and one or more clinical trial sites to assure compliance with GCP requirements and the integrity of the clinical data submitted in an NDA.

After evaluating the application and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally details specific conditions that must be met in order to secure final approval

of the application and may require additional clinical or pre-clinical testing in order for FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require additional contraindications, warnings or precautions to be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a product's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-Approval Requirements

Drugs and biologics manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed product candidates and the establishments at which such product candidates are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA or BLA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

In addition, manufacturers and other entities involved in the manufacture and distribution of approved product candidates are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;

- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of product candidates;
- injunctions or the imposition of civil or criminal penalties;
- consent decrees, corporate integrity agreements, debarment, or exclusion from federal healthcare programs;
- mandated modification of promotional materials and labeling and the issuance of corrective information; or
- the FDA or other regulatory authorities may issue safety alerts, “Dear Healthcare Provider” letters, press releases or other communications containing warnings or other safety information about the product.

The FDA strictly regulates marketing, labeling, advertising and promotion of product candidates that are placed on the market. Product candidates may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

Foreign Government Regulation

Our product candidates will be subject to similar laws and regulations imposed by jurisdictions outside of the United States, and, in particular, Europe, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws and implementation of corporate compliance programs and reporting of payments or other transfers of value to healthcare professionals.

In order to market our future product candidates in the European Economic Area (which is comprised of the 28 Member States of the EU plus Norway, Iceland and Liechtenstein) (the “EEA”), and many other foreign jurisdictions, we must obtain separate regulatory approvals. More concretely, in the EEA, medicinal product candidates can only be commercialized after obtaining a Marketing Authorization (“MA”). There are two types of marketing authorizations:

- the “Community MA,” which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Product candidates for Human Use of the EMA and which is valid throughout the entire territory of the EEA. The Centralized Procedure is mandatory for certain types of product candidates, such as biotechnology medicinal product candidates, orphan medicinal product candidates and medicinal product candidates indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and viral diseases. The Centralized Procedure is optional for product candidates containing a new active substance not yet authorized in the EEA, or for product candidates that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU; and
- “National MAs,” which are issued by the competent authorities of the Member States of the EEA and only cover their respective territory, are available for product candidates not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member State through the Mutual Recognition Procedure. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure.

Under the above described procedures, before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

Data and marketing exclusivity. In the EEA, new product candidates authorized for marketing, or reference product candidates, qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic or biosimilar applicants from relying on the pre-clinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EU until 10 years have elapsed from the initial authorization of the reference product in the EU. The 10-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years of those 10 years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Pediatric investigation plan. In the EEA, marketing authorization applications for new medicinal product candidates not authorized have to include the results of studies conducted in the pediatric population, in compliance with a pediatric investigation plan ("PIP"), agreed with the EMA's Pediatric Committee ("PDCO"). The PIP sets out the timing and measures proposed to generate data to support a pediatric indication of the drug for which marketing authorization is being sought. The PDCO can grant a deferral of the obligation to implement some or all of the measures of the PIP until there are sufficient data to demonstrate the efficacy and safety of the product in adults. Further, the obligation to provide pediatric clinical trial data can be waived by the PDCO when these data are not needed or appropriate because the product is likely to be ineffective or unsafe in children, the disease or condition for which the product is intended occurs only in adult populations, or when the product does not represent a significant therapeutic benefit over existing treatments for pediatric patients. Once the marketing authorization is obtained in all Member States of the EU and study results are included in the product information, even when negative, the product is eligible for a six-month supplementary protection certificate extension or, in the case of orphan medicinal products, a two-year extension of orphan market exclusivity.

Orphan drug designation. In the EEA, a medicinal product can be designated as an orphan drug if its sponsor can establish that the product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically-debilitating condition affecting not more than five in 10,000 persons in the EU when the application is made, or that the product is intended for the diagnosis, prevention or treatment of a life-threatening, seriously-debilitating or serious and chronic condition in the European Community and that without incentives it is unlikely that the marketing of the drug in the EU would generate sufficient return to justify the necessary investment. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the EU or, if such method exists, the drug will be of significant benefit to those affected by that condition.

In the EEA, an application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. Marketing authorization for an orphan drug leads to a ten-year period of market exclusivity. During this market exclusivity period, the EMA or the competent authorities of the Member States, cannot accept another application for a marketing authorization, or grant a marketing authorization, for a similar medicinal product for the same indication. The period of market exclusivity is extended by two years for orphan medicinal products that have also complied with an agreed PIP.

This period of orphan market exclusivity may, however, be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for which it received orphan drug destination, i.e. the prevalence of the condition has increased above the threshold or it is judged that the product is sufficiently profitable not to justify maintenance of market exclusivity. Granting of an authorization for another similar orphan medicinal product where another product has market exclusivity can happen only in selected cases, such as, for example, demonstration of “clinical superiority” by a similar medicinal product, inability of a manufacturer to supply sufficient quantities of the first product or where the manufacturer itself gives consent. A company may voluntarily remove a product from the orphan register. Medicinal products or medicinal product candidates designated as orphan are eligible for incentives made available by the EU and its Member States to support research into, development and availability of orphan medicinal products. In March 2016, we obtained orphan drug designation for setrusumab for the treatment of OI in the EU. We intend to pursue orphan designation for alvelestat and for future, eligible rare disease programs.

Adaptive pathways. The EMA has an adaptive pathways program which allows for early and progressive patient access to a medicine. The adaptive pathways concept is an approach to medicines approval that aims to improve patients’ access to medicines in cases of high unmet medical need. To achieve this goal, several approaches are envisaged: identifying small populations with severe disease where a medicine’s benefit-risk balance could be favorable; making more use of real-world data where appropriate to support clinical trial data; and involving health technology assessment bodies early in development to increase the chance that medicines will be recommended for payment and ultimately covered by national healthcare systems. The adaptive pathways concept applies primarily to treatments in areas of high medical need where it is difficult to collect data via traditional routes and where large clinical trials would unnecessarily expose patients who are unlikely to benefit from the medicine. The approach builds on regulatory processes already in place within the existing EU legal framework. These include: scientific advice; compassionate use; the conditional approval mechanism (for medicines addressing life-threatening conditions); patient registries and other pharmacovigilance tools that allow collection of real-life data and development of a risk-management plan for each medicine.

The adaptive pathways program does not change the standards for the evaluation of benefits and risks or the requirement to demonstrate a positive benefit-risk balance to obtain marketing authorization. In February 2017, setrusumab was accepted into the adaptive pathways program.

PRIME scheme. In July 2016, the EMA launched the PRIME scheme. PRIME is a voluntary scheme aimed at enhancing the EMA’s support for the development of medicines that target unmet medical needs. It is based on increased interaction and early dialogue with companies developing promising medicines, to optimize their product development plans and speed up their evaluation to help them reach patients earlier. Product developers that benefit from PRIME designation can expect to be eligible for accelerated assessment but this is however not guaranteed. The benefits of a PRIME designation includes the appointment of a rapporteur from the Committee for Medicinal Product candidates for Human Use before submission of an MAA, early dialogue and scientific advice at key development milestones, and the potential to qualify product candidates for accelerated review earlier in the application process. In November 2017, the EMA granted PRIME designation for setrusumab for the treatment of OI.

Other U.S. Healthcare Laws

In addition to FDA restrictions on marketing of pharmaceutical and biologic product candidates, other U.S. federal and state healthcare regulatory laws restrict business practices in the pharmaceutical and biotechnology industry, which include, but are not limited to, state and federal anti-kickback, false claims, data privacy and security and physician payment and pricing transparency laws.

The U.S. federal Anti-Kickback Statute prohibits, among other things, any person or entity from knowingly and willfully offering, paying, soliciting, receiving or providing any remuneration, directly or indirectly, overtly or covertly, to induce or in return for purchasing, leasing, ordering, or arranging for or recommending the purchase, lease, or order of any good, facility, item or service reimbursable, in whole or in part, under Medicare, Medicaid or other federal healthcare programs. The term “remuneration” has been broadly interpreted to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements, such as those between pharmaceutical manufacturers on the one hand and prescribers, purchasers, formulary managers and beneficiaries on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not meet the requirements of a statutory or regulatory exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the U.S. federal Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all facts and circumstances. Several courts have interpreted the statute’s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated.

Additionally, the intent standard under the U.S. federal Anti-Kickback Statute was amended by the ACA to a stricter standard such that a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the ACA codified case law that a claim including items or services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil FCA. The majority of states also have anti-kickback laws, which establish similar prohibitions and in some cases may apply to items or services reimbursed by any third-party payor, including commercial insurers, or to self-pay patients.

The federal false claims and civil monetary penalties laws, including the civil FCA, prohibit any person or entity from, among other things, knowingly presenting, or causing to be presented, a false, fictitious or fraudulent claim for payment to, or approval by, the federal government, knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the U.S. federal government. A claim includes “any request or demand” for money or property presented to the U.S. government. Actions under the civil FCA may be brought by the Attorney General or as a qui tam action by a private individual in the name of the government. Violations of the civil FCA can result in very significant monetary penalties and treble damages. Several pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies’ marketing of product candidates for unapproved, or off-label, uses. In addition, the civil monetary penalties statute imposes penalties against any person who is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Many states also have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

HIPAA created additional federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare

benefit program, willfully obstructing a criminal investigation of a healthcare offense and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the U.S. federal Anti-Kickback Statute, the ACA broadened the reach of certain criminal healthcare fraud statutes created under HIPAA by amending the intent requirement such that a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

In addition, there has been a trend of increased federal and state regulation of payments made to physicians and certain other healthcare providers. The ACA imposed, among other things, new annual reporting requirements through the Physician Payments Sunshine Act for applicable manufacturers for certain payments and "transfers of value" provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties. Applicable manufacturers must submit reports by the 90th day of each subsequent calendar year. In addition, certain states require implementation of compliance programs and compliance with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, impose restrictions on marketing practices and/or tracking and reporting of gifts, compensation and other remuneration or items of value provided to physicians and other healthcare professionals and entities.

We may also be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by HITECH, and their respective implementing regulations, including the Final HIPAA Omnibus Rule published on January 25, 2013, impose specified requirements relating to the privacy, security and transmission of individually identifiable health information held by covered entities and their business associates. Among other things, HITECH made HIPAA's security standards directly applicable to "business associates," defined as independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same requirements, thus complicating compliance efforts.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Ensuring that internal operations and business arrangements with third parties comply with applicable healthcare laws and regulations involve substantial costs.

Violations of any of these laws may be punishable by criminal and civil sanctions, including fines and civil monetary penalties, the possibility of exclusion from federal healthcare programs (including Medicare and Medicaid), disgorgement and corporate integrity agreements, which impose, among other things, rigorous operational and monitoring requirements on companies. Similar sanctions and penalties, as well as imprisonment, also can be imposed upon executive officers and employees of such companies. Given the significant size of actual and potential settlements, it is expected that the government authorities will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable laws.

Privacy and Data Protection Laws in Europe

We are subject to European laws relating to our and our suppliers', partners' and subcontractors' collection, control, processing and other use of personal data (i.e., any data relating to an identifiable living individual, whether that individual can be identified directly or indirectly). We are subject to the supervision of local data protection authorities in those jurisdictions where we are established, where we offer goods or services to EU residents and where we monitor the behavior of individuals in the EU (i.e., undertaking clinical trials). We and our suppliers, partners and subcontractors process personal data including in relation to our employees, employees of customers, clinical trial patients, healthcare professionals and employees of suppliers including health and medical information. The data privacy regime in the EU includes the GDPR, the e-Privacy Directive and the e-Privacy Regulation (once in force) and the national laws and regulations implementing or supplementing each of them.

The GDPR requires that personal data is only collected for specified, explicit and legal purposes as set out in the GDPR or local laws, and the data may then only be processed in a manner consistent with those purposes. The personal data collected and processed must be adequate, relevant and not excessive in relation to the purposes for which it is collected and processed, it must be held securely, not transferred outside of the EEA (unless certain steps are taken to ensure an adequate level of protection), and must not be retained for longer than necessary for the purposes for which it was collected. In addition, the GDPR requires companies processing personal data to take certain organizational steps to ensure that they have adequate records, policies, security, training and governance frameworks in place to ensure the protection of data subject rights, including as required to respond to complaints and requests from data subjects. For example, the GDPR requires us to make more detailed disclosures to data subjects, requires disclosure of the legal basis on which we can process personal data, makes it harder for us to obtain valid consent for processing, will require the appointment of a data protection officer where sensitive personal data (i.e., health data) is processed on a large scale, introduces mandatory data breach notification throughout the EU and imposes additional obligations on us when we are contracting with service providers.

In addition, to the extent a company processes, controls or otherwise uses "special category" personal data (including patients' health or medical information, genetic information and biometric information), more stringent rules apply, further limiting the circumstances and the manner in which a company is legally permitted to process that data. Finally, the GDPR provides a broad right for EU member states to create supplemental national laws which may result in divergence across Europe making it harder to maintain a consistent operating model or standard operating procedures. Such laws, for example, may relate to the processing of health, genetic and biometric data, which could further limit our ability to use and share such data or could cause our costs to increase, and harm our business and financial condition.

We depend on a number of third parties in relation to the provision of our services, a number of which process personal data on our behalf. With each such provider we enter into contractual arrangements to ensure that they only process personal data according to our instructions, and that they have sufficient technical and organizational security measures in place. Where we transfer personal data outside the EU, we do so in compliance with the relevant data export requirements from time to time. We take our data protection obligations seriously, as any improper, unlawful or accidental disclosure, loss, alteration or access to, personal data, particularly sensitive personal data (i.e., special category), could negatively impact our business and/or our reputation.

We are also subject to EU laws on personal data export, as we may transfer personal data from the EU to other jurisdictions which are not considered by the European Commission to offer adequate protection of personal data. Such transfers need to be legitimized by a valid transfer mechanism under the GDPR. There is currently ongoing litigation challenging the commonly used transfer mechanisms, the EU Commission approved model clauses. In addition, the EU-U.S. Privacy Shield (the "Privacy

Shield") is currently under review by the European Commission. As such, it is uncertain whether the Privacy Shield framework and/or model clauses will be invalidated in the near future. These changes may require us to find alternative bases for the compliant transfer of personal data from the EU to the United States and we are monitoring developments in this area. Invalidation of any mechanism on which we rely could require operational changes and increased costs and may lead to governmental enforcement actions, litigation, fines and penalties or adverse publicity that could have an adverse effect on our business.

The EU is in the process of replacing the e-Privacy Directive with a new set of rules taking the form of a regulation, which will be directly applicable to the laws of each European member state, without the need for further implementation. The draft e-Privacy Regulation imposes strict opt-in marketing rules with limited exceptions for business-to-business communications and alters rules on third-party cookies, web beacons and similar technology. Regulation of cookies and web beacons may lead to broader restrictions on online research activities, including efforts to understand users' internet usage. The current draft also significantly increases fining powers to the same levels as GDPR (i.e., the greater of 20 million euros or 4% of total global annual revenue). While no official timeframe has been provided, commentators have stated that the e-Privacy Regulation is likely to be agreed in 2019 and to come into force during the second half of 2020 or during 2021 following a transition period.

There are costs and administrative burdens associated with compliance with the GDPR and the resultant changes in the EU and EEA member states' national laws and the introduction of the e-Privacy Regulation once it takes effect. Any failure or perceived failure to comply with global privacy laws carries with it the risk of significant penalties and sanctions of up to 20 million euros or 4% of global turnover. These laws or new interpretations, enactments or supplementary forms of these laws, could create liability for us, could impose additional operational requirements on our business, could affect the manner in which we use and transmit patient information and could increase our cost of doing business. Claims of violations of privacy rights or contractual breaches, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our product candidates unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our product candidates. Sales of any product candidates for which we receive regulatory approval for commercial sale will therefore depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care plans, private health insurers and other organizations.

In the United States, the process for determining whether a third-party payor will provide coverage for a pharmaceutical or biologic product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific product candidates on an approved list, also known as a formulary, which might not include all of the FDA-approved product candidates for a particular indication. A decision by a third-party payor not to cover our product candidates could reduce physician utilization of our product candidates once approved and have a material adverse effect on our sales, results of operations and financial condition. Moreover, a third-party payor's decision to provide coverage for a pharmaceutical or biologic product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be

available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for product candidates can differ significantly from payor to payor. One third-party payor's decision to cover a particular medical product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage-determination process will require us to provide scientific and clinical support for the use of our product candidates to each payor separately and will be a time-consuming process.

In the EEA, governments set the price of product candidates through their health technology assessment, and reimbursement rules and control of national health care systems that fund a large part of the cost of those product candidates to consumers. Some jurisdictions operate positive and negative list systems under which product candidates may only be marketed once a reimbursement price has been agreed to by the government. To obtain reimbursement or pricing approval, some of these countries might compare the new product to an existing standard of care, including other treatments aimed at the same disease, if they exist. Health technology assessments, including cost-effectiveness evaluations, may be conducted in order to assess the medical value or added clinical benefit of a therapy. Countries may also conduct budget-impact assessments for a new therapy. In some cases, tendering is used to decide which therapy will be reimbursed and made available for a group of patients where more than one treatment exists. Countries might also require further studies or in-use evidence to be developed, or create coverage with evidence generation under some form of so-called managed access agreements. Some countries allow for a company to set the price, which is then agreed in negotiation with the country authorities, who might then monitor sales for that product and re-assess or re-evaluate when a certain statutory health insurance expenditure threshold is reached. Other countries might set their price based on prices in a selected country or group of countries under international or external reference pricing systems. If an agreement cannot be reached, confidential discounts might be negotiated between the manufacturer and the healthcare system authorities. The downward pressure on health care costs in general, particularly prescription product candidates, has become very intense. As a result, increasingly high barriers are being erected to the entry of new product candidates. In addition, in some countries, legally permissable cross-border imports from low-priced markets within the EU single market exert a commercial pressure on pricing within a country.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of pharmaceutical or biological product candidates have been a focus in this effort. Third-party payors are increasingly challenging the prices charged for medical product candidates and services, examining the medical necessity and reviewing the cost-effectiveness of pharmaceutical or biological product candidates, medical devices and medical services, in addition to questioning safety and efficacy. If these third-party payors do not consider our product candidates to be cost effective compared to other available therapies, they may not cover our product candidates after approval, if any, or, if they do, the level of payment may not be sufficient to allow us to sell our product candidates at a profit.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical product candidates. For example, the ACA, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; introduced a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for product candidates that are inhaled, infused, instilled, implanted or injected; extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid-managed care plans; imposed mandatory discounts for certain Medicare Part D beneficiaries as a condition for manufacturers' outpatient drugs

coverage under Medicare Part D; subjected manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs; created a new Patient Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; created the Independent Payment Advisory Board, which, once empaneled, will have authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and biologics; and established a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending. Since its enactment, the U.S. federal government has delayed or suspended implementation of certain provisions of the ACA. In addition, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and lower reimbursement, and additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government-funded programs may result in a similar reduction in payments from private payors. Moreover, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed product candidates. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our product candidates.

Additionally, in August, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, included aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will stay in effect through 2025 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. More recently, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed product candidates, which have resulted in several Congressional inquiries and proposed bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical and biologic product candidates.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare product candidates and services, which could result in reduced demand for our product candidates once approved or additional pricing pressures.

Employees

As of December 31, 2018, 2017 and 2016, we had 37, 31 and 24 employees, respectively. Following the Merger, we had 50 employees.

As of March 1, 2020, we had 44 employees, excluding non-executive directors. All of our employees were engaged in either general and administrative or research and development functions. None of our employees is subject to a collective bargaining agreement or represented by a trade or labor union. We consider our relationship with our employees to be good.

Legal Proceedings

There are no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which we are aware) that may have, or have had in the recent past

(covering the 12 months immediately preceding the date of this prospectus), significant effects on our financial position or profitability.

Organizational Structure

We were formed as a private limited company organized under the laws of England and Wales on March 10, 2015 and re-registered as a public limited company on June 3, 2016. We have the following wholly-owned direct or indirect subsidiaries:

Legal Name of Subsidiary	Jurisdiction of Organization
Mereo BioPharma 1 Limited	United Kingdom
Mereo BioPharma 2 Limited	United Kingdom
Mereo BioPharma 3 Limited	United Kingdom
Mereo BioPharma 4 Limited	United Kingdom
Mereo BioPharma Ireland Limited	Ireland
Mereo US Holdings Inc.	Delaware
OncoMed Pharmaceuticals, Inc.	Delaware
NAVI Subsidiary, Inc.	Delaware

Facilities

Our principal office is located at Fourth Floor, One Cavendish Place, London W1G 0QF, United Kingdom, where we lease approximately 4,000 square feet of office space. We lease this office space under a lease that terminates on August 16, 2025. As a result of the Merger, we lease approximately 45,000 square feet in Redwood City, California of which approximately 15,000 square feet is subject to third party sub-leases. We intend to add new facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

MANAGEMENT

Executive Officers and Directors

The following table presents information about our executive officers and directors, including their ages, as of the date of this prospectus:

Name	Age	Position
Executive Officers		
Denise Scots-Knight, Ph.D.	60	Chief Executive Officer and Director
Jill Henrich	57	Senior Vice President of Regulatory Affairs
Richard Jones	53	Chief Financial Officer and Director
Alastair MacKinnon, MBBS	49	Chief Medical Officer
John Richard	62	Head of Corporate Development
Charles Sermon	50	General Counsel
Alexandra (Wills) Hughes-Wilson	48	Head of Patient Access and Commercial Planning
Non-Executive Directors		
Peter Fellner, Ph.D.	76	Chairman of the Board and Director
Peter Bains	62	Director
Paul Blackburn	65	Director
Anders Ekblom, M.D., Ph.D.	65	Director
Kunal Kashyap	54	Director
Deepika R. Pakianathan, Ph.D.	55	Director
Michael S. Wyzga	64	Director

The current business addresses for our executive officers and directors is c/o Mereo BioPharma Group plc, 4th Floor, One Cavendish Place, London, W1G 0QF, United Kingdom.

The following are brief biographies of our executive officers and directors:

Denise Scots-Knight, Ph.D. Dr. Scots-Knight has served as our Chief Executive Officer since July 2015 and as a member of our Board since our formation. From 2010 until joining us, Dr. Scots-Knight was the Managing Partner of Phase4 Partners Ltd. (“Phase4”), a global life science venture capital firm. Dr. Scots-Knight is currently a board member of Phase4 and of Elanco Animal Health Incorporated (NYSE: ELAN). Dr. Scots-Knight previously served as a member of the board of directors of Idenix Pharmaceuticals, Nabriva, Albireo and OncoMed. Dr. Scots-Knight holds a B.Sc. (Hons.) and a Ph.D. from Birmingham University.

Jill Henrich. Ms. Henrich serves as our U.S. Site Head and Senior Vice President of Regulatory Affairs. Prior to the Merger she was Senior Vice President of Regulatory Affairs and QA at OncoMed Pharmaceuticals Inc. Prior to joining OncoMed, Ms. Henrich was at PDL BioPharma, Inc. (Facet Biotech, acquired by AbbVie) as Executive Director of Regulatory Affairs with additional responsibility for Regulatory Operations, Corporate Document Control, Medical Writing and Quality Assurance Compliance. She was Senior Director of Regulatory Affairs at Corixa Corporation (formerly Coulter Pharmaceutical, Inc.), and held various positions in Research (Cell Genetics/Molecular Biology) and Regulatory Affairs at Genentech. Ms. Henrich received her Bachelor of Science degree in Biological Sciences/Microbiology from the University of Connecticut.

Richard Jones. Mr. Jones has served as our Chief Financial Officer and as a member of our Board since January 2017. From 2011 until joining us, Mr. Jones was the Chief Financial Officer and Company Secretary of Shield Therapeutics plc, where he also served as a Non-Executive Director from 2010 to 2011. Mr. Jones serves as a non-executive director on the board of Alliance Pharma plc.

Mr. Jones is a qualified chartered accountant (ACA) with the Institute of Chartered Accountants in England and Wales (ICAEW) and holds a B.Eng. (Hons.) from the University of Newcastle upon Tyne.

Alastair MacKinnon, MBBS. Dr. MacKinnon has served as our Chief Medical Officer since July 2015. From 2010 until joining us, Dr. MacKinnon was a Partner of Phase4, where he currently serves as a member of the board of directors. Dr. MacKinnon holds a B.Sc. and a MBBS from King's College London and is a Member of the Royal College of Surgeons in Edinburgh.

John Richard. Mr. Richard has served as our Head of Corporate Development since July 2015. Prior to joining us, he was a consultant for Nomura, a global investment bank, and Phase4, and previously served as the head of business development for Sequus Pharmaceuticals Inc., VIVUS Inc. and Genome Therapeutics Corporation. Mr. Richard serves on the boards of Catalyst Biosciences, QUE Oncology, and Phase4, and previously served on the boards of Vaxart, Inc., Aviragen Therapeutics, Inc., and Targacept, Inc. Mr. Richard holds a B.S. from Stanford University and an MBA from Harvard Business School.

Charles Sermon. Mr. Sermon has served as our General Counsel and Company Secretary since July 2015. From 2010 until joining us, Mr. Sermon was a Partner of Phase4, where he currently serves as a member of the board of directors. Mr. Sermon trained and qualified as a lawyer with Freshfields after completing the Law Society's Final Examination. Mr. Sermon holds an LL.B. (Hons.) from Hull University.

Alexandra (Wills) Hughes-Wilson. Ms. Hughes-Wilson has served as our Head of Patient Access and Commercial Planning since March 2018. Prior to joining us, Ms. Hughes-Wilson was Senior Vice President, Chief Patient Access Officer at Swedish Orphan Biovitrum (publ.) AB, a biotechnology company, from 2012 to 2018, and prior to that served as Vice President Health & Market Access Policy EMEA at Genzyme (now Sanofi Genzyme), a biotechnology company. Ms. Hughes-Wilson holds a bachelor's degree in Law and Politics (Hons.) from the University of Durham, U.K.

Peter Fellner, Ph.D. Dr. Fellner has been Chairman of our Board since July 2015. He served as Chairman of the board of directors of Consort Medical plc from May 2009 until April 2019 and was Chairman of the board of directors of Ablynx NV from November 2013 until January 2018 and Vernalis plc until October 2018. Dr. Fellner was previously Chairman of the board of directors of Acambis plc from 2006 until its acquisition by Sanofi Pasteur and Optos plc from 2000 until its acquisition by Nikon Corporation, and Vice Chairman of Astex Pharmaceuticals Inc. until its acquisition by Otsuka Pharmaceutical Company. He also served as a Director of UCB S.A. and was CEO and then Chairman of Celltech Group plc. Dr. Fellner holds a B.Sc. (Hons.) from the University of Sheffield and a Ph.D. from the University of Cambridge.

Peter Bains. Mr. Bains has served on our Board since July 2015. Mr. Bains was a Representative Executive Officer and Chief Executive Officer of Sosei Group Corporation, a Japanese listed biotechnology company until 31 December 2018. Previously, he was Chief Executive Officer of Syngene International Ltd, a BSE listed contract research organization, where he served as a Non-Executive Director until 2016. Mr. Bains also served as Non-Executive Chairman of Fermenta Biotech Ltd, an Indian speciality manufacturing company until April 2018. Mr. Bains currently serves as a Non-Executive Director for MiNA Therapeutics Ltd and Apterna Ltd, both privately held UK biotechnology companies, Phase4, and Indivior PLC, a FTSE listed speciality pharmaceuticals company. Mr. Bains holds a B.Sc. (Hons.) from Sheffield University.

Paul Blackburn. Mr. Blackburn has served on our Board since October 2015. Mr. Blackburn was Senior Vice President Strategic Finance Projects and Financial Controller at GlaxoSmithKline. Mr. Blackburn currently serves on the Board of Directors of Syngene. Mr. Blackburn is a member of the Chartered Institute of Managed Accountants. Mr. Blackburn holds a B.Sc. from Warwick University.

Anders Ekblom, M.D., Ph.D. Dr. Ekblom has served on our Board since July 2015. Dr. Ekblom has held a number of executive positions at AstraZeneca, including Executive Vice President Global Drug Development, Executive Vice President Global Medicines Development, Global Head Clinical Development, Global Therapy Area Head, Global Head Science & Technology Integration, and Chief Executive Officer of AstraZeneca AB Sweden. He currently serves as Chairman of the Board of Elypta AB, as Vice Chairman of the Board of LEO Pharma A/S, and on the boards of directors of Alligator Bioscience AB and AnaMar AB. Dr. Ekblom is a board-certified medical doctor and an Associate Professor at the Karolinska Institutet. Dr. Ekblom holds a D.D.S., M.D. and Ph.D. from Karolinska Institutet.

Kunal Kashyap. Mr. Kashyap has served on our Board since July 2015. Mr. Kashyap is Chairman and Managing Director of Allegro Capital Advisors and a Non-Executive Director of Phase4. He had also served as an Independent Director of GlaxoSmithKline Consumer Healthcare Ltd until June 2019. Mr. Kashyap was a partner with Arthur Andersen responsible for establishing and managing their operations in South India. Mr. Kashyap is also the Founder and was the Executive Director of Celstream Technologies Private Limited. Mr. Kashyap is a Chartered Accountant from the Institute of Chartered Accountants of India.

Deepika R. Pakianathan, Ph.D. Dr. Pakianathan has served on our Board since April 2019 following completion of the Merger and served as a director of OncoMed since December 2008 until the closing of the Merger. Since 2001, Dr. Pakianathan has been a Managing Member at Delphi Ventures, a venture capital firm focused on biotechnology and medical device investments. Dr. Pakianathan serves on the boards of directors of Karyopharm Therapeutics, Inc., and Calithera Biosciences, Inc. Dr. Pakianathan previously served on the boards of directors of Alexza Pharmaceuticals, Inc., Alder Biopharmaceuticals, Inc., PTC Therapeutics, Inc. and Relypsa, Inc. Dr. Pakianathan received a B.Sc. from the University of Bombay, India, a M.Sc. from The Cancer Research Institute at the University of Bombay, India, and an M.S. and Ph.D. from Wake Forest University.

Michael S. Wyzga. Mr. Wyzga has served on our Board since April 2019 following completion of the Merger and had served as a director of OncoMed since October 2013 until the closing of the Merger. Mr. Wyzga is currently the President of MSW Consulting Inc., a strategic consulting group focused in the life sciences area. From December 2011 until November 2013, Mr. Wyzga served as President and Chief Executive Officer and a member of the board of directors of Radius Health, Inc. Prior to that, Mr. Wyzga served in various senior management positions at Genzyme Corporation, including as Chief Financial Officer from July 1999 until November 2011. Mr. Wyzga is a member of the boards of directors of Exact Sciences Corporation and LogicBio, and is Chairman of the board of directors of GenSight Biologics S.A. and of X4 Biologics. Mr. Wyzga previously served as a member of the boards of directors of Idenix Pharmaceuticals, Inc. and Altus Pharmaceuticals, Inc., and as a member of the supervisory board of Prosensa Holding B.V. He received an M.B.A. from Providence College and a B.S. from Suffolk University.

In accordance with our Articles, our directors serve for three-year terms. The current term for all of our directors expires in 2021, except for Mr. Jones, whose current term expires in 2020 and for Michael S. Wyzga and Deepika R. Pakianathan whose current terms expire in 2022 following their re-appointment at our last annual general meeting held on June 19, 2019. Our shareholders elect directors in accordance with our Articles of Association. If our shareholders do not elect a new director, then the retiring director may, if willing to serve, continue as a director. See “Description of Share Capital and Articles of Association—Articles of Association—Directors—Appointment of Directors.”

Foreign Private Issuer Exemption

As a “foreign private issuer,” as defined by the SEC, we are permitted to follow home country corporate governance practices, instead of certain corporate governance practices required by Nasdaq

for U.S. domestic issuers. While we intend to follow most Nasdaq corporate governance rules, we intend to follow U.K. corporate governance practices in lieu of Nasdaq corporate governance rules as follows:

- We do not intend to follow Nasdaq Rule 5620(c) regarding quorum requirements applicable to meetings of shareholders. Such quorum requirements are not required under English law. In accordance with generally accepted business practice, our Articles provide alternative quorum requirements that are generally applicable to meetings of shareholders.
- We do not intend to follow Nasdaq Rule 5605(b)(2), which requires that independent directors regularly meet in executive session, where only independent directors are present. Our independent directors may choose to meet in executive session at their discretion.

Although we may rely on certain home country corporate governance practices, we must comply with Nasdaq Rule 5640 Notification of Noncompliance and Rule 5640 Voting Rights. Further, we must have an audit committee that satisfies Rule 5605(c)(3), which addresses audit committee responsibilities and authority, and that consists of committee members that meet the independence requirements of Rule 5605(c)(2)(A)(ii).

We intend to take all actions necessary for us to maintain compliance as a foreign private issuer under the applicable corporate governance requirements of the Sarbanes-Oxley Act of 2002, the rules adopted by the SEC and the Nasdaq corporate governance rules and listing standards.

Because we are a foreign private issuer, our directors and senior management are not subject to short-swing profit and insider trading reporting obligations under Section 16 of the Exchange Act. They will, however, be subject to the obligations to report changes in share ownership under Section 13 of the Exchange Act and related SEC rules.

Compliance with the Quoted Companies Alliance Corporate Governance Code

Since September 28, 2018, all companies with securities admitted to trading on AIM are required to include on their website details of a recognized corporate governance code that the Board of the company has decided to apply, how the company complies with that code, and where it departs from its chosen corporate governance code an explanation of the reasons for doing so. This information is required to be reviewed annually.

We have decided to apply the Corporate Governance Code published by the Quoted Companies Alliance or the QCA Code. The QCA Code sets out a standard of minimum best practice for small and midsize quoted companies.

Composition of our Board

Our Board currently consists of nine members. Our Board has determined that none of our directors have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of director and that each of these directors is “independent” as that term is defined under the rules of Nasdaq. As a foreign private issuer, we are not required to meet the Nasdaq rule that our board be comprised of a majority of independent directors. However, we currently comply and intend to continue to comply with this requirement. There are no family relationships among any of our directors or senior management.

Committees of our Board

Our Board has four standing committees: an audit and risk committee, a remuneration committee, a nomination committee, and a research and development committee.

Audit and Risk Committee

The audit and risk committee, which consists of Paul Blackburn, Kunal Kashyap and Michael S. Wyzga, assists the board in overseeing our accounting and financial reporting processes and the audits of our financial statements. Mr. Blackburn serves as Chairman of the committee. The audit and risk committee consists exclusively of members of our board who are financially literate, and Mr. Blackburn is considered an "audit committee financial expert" as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq rules and regulations. Our board has determined that all of the members of the audit and risk committee satisfy the "independence" requirements set forth in Rule 10A-3 under the Exchange Act. The audit and risk committee is governed by a charter that complies with Nasdaq rules.

The audit and risk committee's responsibilities include:

- recommending the appointment of the independent auditor to the general meeting of shareholders;
- the appointment, compensation, retention and oversight of any accounting firm engaged for the purpose of preparing or issuing an audit report or performing other audit services;
- pre-approving the audit services and non-audit services to be provided by our independent auditor before the auditor is engaged to render such services;
- evaluating the independent auditor's qualifications, performance and independence, and presenting its conclusions to the full board on at least an annual basis;
- reviewing and discussing with the executive officers, the board, and the independent auditor our financial statements and our financial reporting process; and
- approving or ratifying any related person transaction (as defined in our related person transaction policy) in accordance with our related person transaction policy.

The audit and risk committee will meet as often as one or more members of the audit and risk committee deem necessary, but in any event will meet at least four times per year. The audit and risk committee will meet at least once per year with our independent accountant, without our senior management being present.

Remuneration Committee

The remuneration committee, which consists of Peter Bains, Deepika R. Pakianathan and Anders Ekblom, assists the board in determining senior management compensation. Mr. Bains serves as Chairman of the committee. Under SEC and Nasdaq rules, there are heightened independence standards for members of the remuneration committee, including a prohibition against the receipt of any compensation from us other than standard board member fees. However, foreign private issuers are not required to meet this heightened standard. Nonetheless, our board has determined that Mr. Bains, Dr.Pakianathan and Dr. Ekblom meet this heightened standard. The remuneration committee is governed by a charter that complies with Nasdaq rules.

The remuneration committee's responsibilities include:

- identifying, reviewing, and proposing policies relevant to senior management compensation;
- evaluating each member of senior management's performance in light of such policies and reporting to the board;
- analyzing the possible outcomes of the variable compensation components and how they may affect the compensation of senior management;

- recommending any equity long-term incentive component of each member of senior management's compensation in line with any compensation policy and reviewing our senior management compensation and benefits policies generally; and
- reviewing and assessing risks arising from our compensation policies and practices.

Nomination Committee

The nomination committee, which consists of Peter Bains, Anders Ekblom and Peter Fellner, assists our board in identifying individuals qualified to become members of our board and senior management consistent with criteria established by our board and in developing our corporate governance principles. Dr. Fellner serves as Chairman of the nomination committee. The nomination committee is governed by a charter that complies with Nasdaq rules.

The nomination committee's responsibilities include:

- drawing up selection criteria and appointment procedures for board members;
- reviewing and evaluating the size and composition of our board and making a proposal for a composition profile of the board at least annually;
- recommending nominees for election to our board and its corresponding committees;
- assessing the functioning of individual members of the board and senior management and reporting the results of such assessment to the board; and
- developing and recommending to the board rules governing the board, reviewing and reassessing the adequacy of such rules governing the board, and recommending any proposed changes to the board.

Research and Development Committee

The research and development committee, which consists of Peter Bains, Deepika R. Pakianathan and Anders Ekblom, assists our senior management with oversight and guidance related to strategic research and development matters and provides guidance and makes recommendations to our board regarding strategic research and development matters. Dr. Ekblom serves as Chairman of the research and development committee.

The research and development committee's responsibilities include oversight of:

- our strategic development plans for product candidates, taking into account any regulatory feedback; and
- the acquisition of new product candidates.

In addition, the research and development committee is tasked with keeping informed of strategic issues and commercial changes affecting our development programs and potential product acquisitions.

Code of Business Conduct and Ethics and Anti-Bribery and Anti-Corruption Policy

We have adopted a Code of Business Conduct and Ethics and an Anti-Bribery and Anti-Corruption Policy applicable to all of our directors, executive officers and employees, including our Chief Executive Officer, Chief Financial Officer, controller or principal accounting officer, or other persons performing similar functions. The full text of the Code of Business Conduct and Ethics and the Anti-Bribery and Anti-Corruption Policy can be found on our website at www.mereobiopharma.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus and is not incorporated by reference herein. If we make any amendment to the Code of Business Conduct and Ethics or the Anti-Bribery and Anti-Corruption Policy or grant any waivers,

including any implicit waiver, from a provision of the code of ethics, we will disclose the nature of such amendment or waiver on our website to the extent required by the rules and regulations of the SEC. If a waiver or amendment of the Code of Business Conduct and Ethics applies to our principal executive officer, principal financial officer, principal accounting officer or controller and relates to certain standards, we will disclose such waiver or amendment on our website.

Compensation

See also "—Equity Compensation Arrangements" below.

Executive Officer Remuneration

The following table sets forth the approximate remuneration paid during the years ended December 31, 2019, 2018 and 2017 to our current executive officers.

Name and Principal Position	Year	Salary (£)	Bonus(1) (£)	All Other Compensation(2) (£)	Total(3) (£)
Denise Scots-Knight, Ph.D.	2017	365,000	242,725	64,196	671,921
Chief Executive Officer	2018	379,600	303,680	64,560	747,840
	2019	390,988	293,241	67,145	751,374
Jill Henrich(4)	2017	—	—	—	—
SVP of Regulatory Affairs	2018	—	—	—	—
	2019	199,800	81,181	5,945	286,926
Richard Jones	2017	231,090	166,250	29,224	426,564
Chief Financial Officer	2018	260,000	208,000	33,481	501,481
	2019	291,200	218,400	37,288	546,888
Alastair MacKinnon, MBBS	2017	256,000	170,240	27,916	454,156
Chief Medical Officer	2018	281,600	225,280	30,698	537,578
	2019	290,048	217,536	32,537	540,121
John Richard(5)	2017	275,338	218,727	—	494,065
Head of Corporate Development	2018	277,861	230,053	—	507,914
	2019	295,985	210,227	6,773	512,985
Charles Sermon	2017	271,625	180,631	33,164	485,420
General Counsel	2018	282,490	225,992	34,975	543,457
	2019	290,964	218,223	36,492	545,679
Alexandra (Wills) Hughes-Wilson	2017	—	—	—	—
Head of Patient Access and Commercial Planning	2018	63,750	30,000	6,375	100,125
	2019	178,551	69,525	17,855	265,931

(1) Amount shown reflects cash bonuses awarded for achievement of performance goals. In 2018, 30% of the annual cash bonus awarded was made (after deduction of income tax and the relevant employee's national insurance contributions) to Mereo's current executive officers to acquire Mereo ordinary shares under the 2019 DBP (as defined below). In 2019, 30% of the annual cash bonus awarded which has not yet been paid will be made (after deduction of income tax and the relevant employee's national insurance contributions) to Mereo's current executive officers to acquire Mereo ordinary shares under the 2019 DBP.

(2) Amount shown represents health benefit payments and pension contributions made by us.

(3) Total compensation set out in this table does not include any amounts for awards under the DBSP or the value of options to acquire Mereo ordinary shares or awards granted to or held by current senior management, which is described in "—Equity Compensation Arrangements."

(4) Appointed in 2019.

(5) Mr. Richard provided services to us in 2018 and 2019 pursuant to a consultancy agreement and currently provides services to us pursuant to an employment agreement. See "—Executive Officer Employment Agreements—John Richard."

Executive Officer Employment Agreements

Denise Scots-Knight, Ph.D.

We entered into an employment agreement with Dr. Scots-Knight on July 29, 2015. This agreement entitles Dr. Scots-Knight to receive an initial annual base salary of £275,000 (which was subsequently increased to £379,600 for 2018 and £390,988 for 2019) and an opportunity to earn an annual discretionary performance-based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan. We currently contribute to Dr. Scots-Knight's Self-Invested Personal Pension Scheme an amount equal to 15% of Dr. Scots-Knight's annual salary, provided that she contributes 4% or more of her annual salary to that scheme. In lieu of a pension contribution, we may, at Dr. Scots-Knight's request, pay a pro-rata amount equal to 10% of her base salary as additional compensation. Either party may terminate the employment agreement by giving the other party not less than 12 months' written notice, provided that we may terminate Dr. Scots-Knight at any time with immediate effect for cause or by giving written notice to Dr. Scots-Knight that we will instead pay her basic salary for any remaining notice period. Dr. Scots-Knight's employment agreement also contains restrictive covenants pursuant to which she has agreed to refrain from competing with us or soliciting our key employees for a period of six months following her termination of employment or soliciting our customers for a period of nine months following her termination of employment.

Jill Henrich

OncoMed entered into an employment agreement with Ms. Henrich on May 22, 2008, pursuant to which she commenced employment with OncoMed on January 5, 2009. This agreement was subsequently amended on October 27, 2015. Following the acquisition of OncoMed, Ms. Henrich became our Senior Vice President of Regulatory Affairs. On November 1, 2019, we entered into a letter agreement with Ms. Henrich amending all prior employment agreements between Ms. Henrich and OncoMed.

The employment agreement between us and Ms. Henrich entitles Ms. Henrich to receive an annual base salary of $357,200 per year and an opportunity to earn an annual discretionary performance-based bonus, subject to achievement of corporate goals. Either party may terminate the employment agreement at any time, with or without cause. Ms. Henrich's employment agreement also contains restrictive covenants pursuant to which she has agreed to refrain from soliciting our employees for one year following her termination of employment.

Upon termination of Ms. Henrich's employment prior to or twelve months following a change in control of OncoMed, Ms. Henrich is entitled to (i) severance payments of nine months of her then-current annual base salary, (ii) nine months of her then-current target annual bonus for the year in which the termination occurs, and (iii) reimbursement for healthcare premium payments for nine months. In each case, the nine-month severance package increases to twelve months if Ms. Henrich executes a release of all claims arising out of her employment with OncoMed.

Richard Jones

We entered into an employment agreement with Mr. Jones on November 7, 2016 pursuant to which he commenced employment with us on January 28, 2017. This agreement entitles Mr. Jones to receive an initial annual base salary of £250,000 (which was subsequently increased to £260,000 for 2018 and £291,200 for 2019) and an opportunity to earn an annual discretionary performance-based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan. Mr. Jones is also eligible to participate in our group personal pension scheme and we have agreed to contribute to the pension scheme an amount equal to 10% of Mr. Jones's annual salary provided that he contributes 4% or more of his annual salary to that scheme. In lieu of a pension contribution, we may, at Mr. Jones's request, pay a pro-rata amount equal to 10% of his base salary as additional compensation. Either party may terminate the employment agreement by giving the other party not less than six months' written notice, provided that we may terminate Mr. Jones at any time with immediate effect for cause or by giving written notice to Mr. Jones that we will instead pay his basic salary for any remaining notice period. Mr. Jones's

employment agreement also contains restrictive covenants pursuant to which he has agreed to refrain from competing with us or soliciting our key employees for a period of six months following his termination of employment or soliciting our customers for a period of nine months following his termination of employment.

Alastair MacKinnon, MBBS

We entered into an employment agreement with Dr. MacKinnon on July 29, 2015, and subsequently amended the agreement on November 24, 2017. This agreement entitles Dr. MacKinnon to receive an initial annual base salary of £210,000 (which was subsequently increased to £281,600 for 2018 and £290,048 for 2019) and an opportunity to earn an annual discretionary performance-based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan.

Dr. MacKinnon is also eligible to participate in our group personal pension scheme and we have agreed to contribute to the pension scheme an amount equal to 10% of Dr. MacKinnon's annual salary provided that he contributes 4% or more of his annual salary to that scheme. In lieu of a pension contribution, we may, at Dr. MacKinnon's request, pay a pro-rata amount equal to 10% of his base salary as additional compensation. Either party may terminate the employment agreement by giving the other party not less than six months' written notice, provided that we may terminate Dr. MacKinnon at any time with immediate effect for cause or by giving written notice to Dr. MacKinnon that we instead pay his basic salary for any remaining notice period. Dr. MacKinnon's employment agreement also contains restrictive covenants pursuant to which he has agreed to refrain from competing with us for a period of three months following his termination of employment, soliciting our key employees for a period of six months following his termination of employment, or soliciting our customers for a period of nine months following his termination of employment.

John Richard

We entered into a consultancy agreement with Mr. Richard on January 23, 2019, pursuant to which he provided services to us during 2019 and which terminated on September 1, 2019. Mr. Richard currently provides services to us pursuant to a revised and restated employment agreement dated September 1, 2019 (the "Richard Employment Agreement").

The Richard Employment Agreement entitles Mr. Richard to receive a base salary of $370,000 per year, and an opportunity to earn an annual discretionary performance-based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan. Either party may terminate the employment agreement by giving the other party not less than three months' written notice, provided that we may terminate Mr. Richard at any time with immediate effect for cause or by giving written notice to Mr. Richard that we will instead pay his basic salary for any remaining notice period. Mr. Richard's employment agreement also contains restrictive covenants pursuant to which he has agreed to refrain from competing with us or soliciting our key employees or customers for a period of six months following his termination of employment.

Charles Sermon

We entered into an employment agreement with Mr. Sermon on July 29, 2015. This agreement entitles Mr. Sermon to receive an initial annual base salary of £245,000 (which was subsequently increased to £282,490 for 2018 and £290,964 for 2019) and an opportunity to earn an annual discretionary performance- based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan. We have agreed to contribute to Mr. Sermon's Self-Invested Personal Pension Scheme an amount equal to 10% of Mr. Sermon's annual salary provided that he contributes 4% or more of his annual salary to that scheme. In lieu of a pension contribution, we may, at Mr. Sermon's request, pay a pro-rata amount equal to 10% of his base salary as additional compensation. Either party may terminate the employment agreement by giving the other party not less than six months' written notice, provided that we may terminate Mr. Sermon at any time with immediate effect for cause or by giving written notice to Mr. Sermon that we will instead pay his basic salary for any remaining notice period. Mr. Sermon's employment agreement also contains restrictive covenants pursuant to which he has agreed to refrain from competing with us or soliciting our key

employees for a period of six months following his termination of employment or soliciting our customers for a period of nine months following his termination of employment.

Alexandra (Wills) Hughes-Wilson

We entered into a part-time employment agreement with Ms. Alexandra (Wills) Hughes-Wilson on February 19, 2018, and subsequently amended the agreement on May 29, 2018 and on March 8, 2019. Ms. Hughes-Wilson commenced part-time employment with us as our Head of Patient Access and Commercial Planning on March 5, 2018. The employment agreement entitles Ms. Hughes-Wilson to receive an initial annual base salary of £185,400 and an opportunity to earn an annual discretionary performance-based bonus, subject to the achievement of performance goals determined in accordance with our annual bonus plan.

Ms. Hughes-Wilson is also eligible to participate in our group personal pension scheme and we have agreed to contribute to the pension scheme an amount equal to 10% of Ms. Hughes-Wilson annual salary provided that she contributes 4% or more of her annual salary to that scheme. In lieu of a pension contribution, we may, at Ms. Hughes-Wilson's request, pay a pro-rata amount equal to 10% of her base salary as additional compensation. Either party may terminate the employment agreement by giving the other party not less than six months' written notice, provided that we may terminate Ms. Hughes-Wilson at any time with immediate effect for cause or by giving written notice to Ms. Hughes-Wilson that we will instead pay her basic salary for any remaining notice period. Ms. Hughes-Wilson's employment agreement also contains restrictive covenants pursuant to which she has agreed to refrain from competing with us or soliciting our key employees for a period of six months following her termination of employment or soliciting our customers for a period of nine months following her termination of employment.

Equity Compensation Arrangements

We have granted or may grant or intend to grant share options and awards under the following seven equity award plans (the "Share Plans"): (i) the 2015 Plan; (ii) the Share Option Plan; (iii) the LTIP; (iv) the DBSP; (v) the Mereo 2019 Deferred Bonus Plan (the "2019 DBP"); (vi) the Mereo 2019 EIP, and (vii) the 2019 NED EIP.

The 2015 Plan

Prior to the admission of our ordinary shares to trading on AIM ("Admission"), we granted options under the 2015 Plan. No further grants have been made under the 2015 Plan since Admission.

Eligibility, Awards and Administration

The 2015 Plan provides for the grant of options to executive directors, non-executive directors, employees and consultants.

Options granted under the 2015 Plan vest in accordance with the vesting schedule set out in each option holder's option agreement, in normal circumstances, between the first and fourth anniversary (or between the first and third anniversary for non-executive directors) of the vesting start date (typically the date of commencement of employment, appointment as a director, or entering into a consultancy agreement with us).

Admission did not automatically accelerate the vesting of options, and unvested options continue to vest in accordance with their original vesting schedule, subject to the rules of the 2015 Plan. The options are not subject to performance conditions other than continued service.

Options are not automatically exercisable on vesting, but upon Admission became exercisable to the extent vested. Options may generally be exercised until the day immediately preceding the tenth anniversary of the date of grant.

Options have been granted under the 2015 Plan with an exercise price ranging from £1.29 per ordinary share to £2.21 per ordinary share.

Plan Leavers

Options held by option holders who leave their office or employment will lapse immediately, unless the option holder is a Good Leaver (as defined in the plan rules). If the option holder is a Good Leaver, the option may be exercised to the extent vested at the date of cessation of services and for such period as our Board determines and communicates to the option holder at that time (except upon death, in which case, options may be exercised for a period of one year), after which time they will lapse.

Certain Transactions

Under the 2015 Plan, certain corporate events such as a Takeover or a Trade Sale (as defined in the plan rules) will accelerate the vesting of all unvested options upon the occurrence of such event. Options will then be exercisable for a period of 40 days thereafter, after which they will lapse.

Adjustments

In the event of any capitalization, rights issue, consolidation, subdivision, reduction or any other variation of our share capital, the number of ordinary shares subject to an option and the exercise price applying to an option may be varied in such manner as our Board may determine.

Amendment and Termination

Our Board may, at any time, amend the rules of the 2015 Plan with effect from a current, future or past date by way of a resolution, except that no amendment may be made which would abrogate or adversely affect the subsisting rights of option holders, unless consent from a majority of the affected option holders is obtained (by reference to the number of ordinary shares subject to options). However, any amendment to benefit the administration of the 2015 Plan, to take account of legislative changes, a Takeover or a Trade Sale (as defined in the plan rules) or to obtain or maintain favorable tax treatment or regulatory treatment may be made by our Board without the consent of option holders.

The Mereo Share Option Plan

Our Board adopted the Share Option Plan on June 9, 2016, and has subsequently amended it. Except where the context indicates otherwise, references to our ordinary shares shall be deemed to include a number of ADSs representing a right to receive such ordinary shares.

Eligibility, Awards and Administration

The Share Option Plan provides for the grant of options to acquire our ordinary shares to employees and executive directors. Options may be granted to all eligible employees on commencement of employment and may be granted on a periodic basis after that. The Share Option Plan is administered by our Board who also set the terms and conditions of all options granted under the Share Option Plan, including any vesting and vesting acceleration conditions. Options are granted under the Share Option Plan at the discretion of our Board.

Vesting and Exercise

Under the Share Option Plan, our Board may determine the vesting schedule of an option and whether the vesting of an option will be subject to the satisfaction of a performance condition, although options are not currently granted subject to performance conditions other than continued service with us. Once an option has vested, it may be exercised during the period ending on the tenth anniversary of the date of grant, after which time it will lapse. The exercise price of an option may not be less than

the greater of: (i) the market value of a share on the date of grant; or (ii) if the shares are to be subscribed, the nominal value of a share. Our Board may determine that an option be settled in cash or by net exercise of the option.

Limitation on Awards

No eligible employee may be granted options that, at the time they are granted, would cause the market value of shares subject to the options granted to the employee in respect of a financial year to exceed 400% of the employee's salary.

Plan Leavers

If a participant ceases to hold office or employment with us as a result of dismissal for gross misconduct, any option the participant holds, whether vested or unvested, will lapse.

If a participant ceases to hold office or employment with us for any reason other than dismissal for gross misconduct then: (i) if the option is already vested, it may be exercised within six months from the date of cessation of services if such cessation did not occur as a result of the participant's death, and within 12 months from the date of cessation of services if such cessation occurred as a result of the participant's death; and (ii) if the option is not already vested, it will vest on the normal vesting date as described above, unless our Board determines that the option will vest on the date of cessation of services. Where an option vests in these circumstances, any performance condition will be taken into account and, unless our Board determines otherwise, will be pro-rated for time.

Unless the board determines otherwise, options may not be transferred in any way and will lapse immediately on any attempt to do so, except that options may be transferred to a participant's personal representative upon death.

Certain Transactions

Under the Share Option Plan, if certain changes are made in, or events occur with respect to our ordinary shares (including any variation of share capital, demerger, delisting, special dividend, rights issue or any other event, which may, in the opinion of our Board affect the current or future value of our ordinary shares), the number of shares subject to an option or the exercise price of an option may be adjusted as determined by our Board. In addition, upon such an event, our Board will determine: (i) whether and to what extent options which have not yet vested will vest; and (ii) the period of time during which any vested option may be exercised.

In the event of certain corporate transactions, including a scheme of arrangement or general offer, the vesting and exercisability of all options will accelerate to the extent determined by our Board, after which they will be exercisable for one month (or such longer period as determined by our Board, but not exceeding six months), following which they will lapse. However, if there is an internal reorganization, unless our Board determines otherwise, an option will generally be exchanged in consideration of the grant of a new option which, as determined by our Board, is equivalent to the option but relates to shares in a different company (whether the acquiring company or a different company). Any option that does not vest or is not exchanged will lapse immediately.

Amendment and Termination

Our Board may, at any time, amend the rules of the Share Option Plan, except that no amendment may be made: (i) which would be to the material disadvantage of the existing rights of participants unless every participant who may be affected by such amendment has been invited to indicate whether he or she approves the amendment and the amendment is approved by a majority of such participants; or (ii) which would prevent the Share Option Plan from being an employees' share scheme in accordance with the U.K. Companies Act 2006. No options may be granted pursuant to the Share Option Plan after the tenth anniversary of the date of our Admission.

The Mereo LTIP

In order to further incentivize our employees and align their interests with shareholders, our Board adopted the LTIP on June 9, 2016 and has subsequently amended it.

Eligibility, Awards and Administration

The LTIP provides for the grant of nil-cost options, conditional awards, cash conditional awards or cash options (the "LTIP Awards") to our employees. The shares used to satisfy the LTIP Awards are currently delivered through the Mereo BioPharma Group plc Employee Benefit Trust, which is based in Jersey.

Our Board may determine that the LTIP Awards are settled in cash.

Vesting and Exercise

The LTIP Awards are subject to a vesting schedule as determined by our Board. LTIP Awards granted to key executive directors and senior management are subject to: (i) a share price performance condition; and (ii) the achievement of strategic operational targets. If on the date a LTIP Award is due to vest or be exercisable a restriction on share dealing (as may be imposed by our share dealing code or the AIM rules) applies to the award, then the award will vest on the date on which such dealing restriction lifts.

Limitation on Awards

No eligible employee may be granted LTIP Awards that, at the time they are granted, would cause the market value of shares subject to the LTIP Awards granted to the employee in respect of a financial year to exceed 300% of the employee's salary.

The LTIP Awards may be: (i) reduced; or (ii) where the underlying shares or cash has already been transferred to the participant following vesting or exercise of the LTIP Award (as applicable), clawed back, where prior to the second anniversary of the end of the relevant performance period there has been a material misstatement of our accounts, an error in assessing a performance condition such that the LTIP Award vests to a greater extent than it would have vested, or fraudulent or material misconduct on the part of the participant.

Scheme Leavers

The LTIP Awards will usually lapse on the participant's cessation of employment or office, unless the cessation is because of death, ill health, injury or disability, or where the participant is no longer employed by us, or for any other reason at our Board' discretion, except where the participant is summarily dismissed, in which case any unvested LTIP Awards will usually continue until the normal vesting date, unless our Board determines otherwise.

Certain Transactions

Under the LTIP, if certain changes are made in or events occur with respect to our ordinary shares (including any variation of share capital, any demerger, delisting, special dividend, rights issue or other event which may in the opinion of our Board, affect the current or future value of our ordinary shares), the number of shares subject to a LTIP Award, or any performance condition, may be adjusted as determined by our Board. In addition, upon such an event, our Board will determine: (i) whether and to what extent Awards which have not yet vested will vest; and (ii) the period of time during which any vested option may be exercised.

In the event of certain corporate transactions, including a general offer or a scheme of arrangement, the vesting and exercisability of all LTIP Awards will accelerate to the extent determined

by our Board (taking into account the extent to which any performance conditions have been satisfied and usually the period of time from the date of grant to the date of the corporate transaction), and any nil-cost options will remain exercisable for one month (or such other period as determined by our Board), following which they will lapse. However, if there is an internal reorganization, a LTIP Award will be exchanged in consideration of the grant of a new award which, as determined by our Board, is equivalent to the LTIP Award but relates to shares in a different company (whether the acquiring company or a different company). Any LTIP Award that does not vest or is not exchanged will lapse immediately.

Amendment and Termination

Our Board may, at any time, amend the rules of the LTIP or the terms of any LTIP Award, except that no amendment may be made: (i) which would be to the material disadvantage of the existing rights of participants unless every participant who may be affected by such amendment has been invited to indicate whether he or she approves the amendment and the amendment is approved by a majority of such participants; or (ii) which would prevent the LTIP from being an employees' share scheme in accordance with the U.K. Companies Act 2006. No LTIP Awards may be granted pursuant to the LTIP after the tenth anniversary of the date of Admission.

The Mereo DBSP

Our Board adopted the DBSP on June 9, 2016 and has subsequently amended it. Following the adoption of the 2019 DBP in January 2019, no further grants are expected to be made under the DBSP.

Eligibility, Awards and Administration

The DBSP provides for the deferral of a percentage (currently 30%) of the annual bonuses awarded to our employees into the right to acquire shares equal in value to the amount deferred, free of charge.

Under the DBSP, conditional awards or nil-cost options (the "DBSP Awards"), may only be granted to participants who have earned a bonus, pursuant to our annual bonus plan, for the financial year immediately preceding the financial year in which the grant date occurs. A DBSP Award will be granted over such number of shares as have at the grant date a market value, as determined by our Board, equal to the deferred bonus (the amount of bonus which is to be delivered in the form of a conditional award or a nil-cost option).

Vesting and Exercise

The DBSP Awards will generally vest three years after the date of grant and have no performance conditions or service condition. The DBSP Awards may be settled in cash if determined by our Board. The shares used to satisfy the DBSP Awards are currently delivered through the Mereo BioPharma Group plc Employee Benefit Trust, which is based in Jersey.

If on the date a DBSP Award is due to vest or be exercisable a restriction on share dealing (as may be imposed by our share dealing code or the AIM rules) applies to the award, then the award will vest on the date on which such dealing restriction lifts.

Once a nil-cost option has vested, it may be exercised during the period ending on the first anniversary of the date on which it vested in such manner as our Board determines, after which time it will lapse.

Limitation on Awards

No eligible employee may be granted DBSP Awards that, at the time they are granted, would cause the market value of shares subject to the DBSP Awards granted to the employee in respect of a

financial year to exceed 100% of the employee's salary. The DBSP Awards may, prior to the third anniversary of the grant date, be: (i) reduced; or (ii) where the underlying shares or cash have already been transferred to the participant following vesting or exercise of the DBSP Award (as applicable), clawed back, where there has been a material misstatement of our accounts, an error in assessing the information on which the bonus was determined such that the bonus was overpaid, or fraudulent or material misconduct on the part of the participant.

Certain Transactions

Under the DBSP, if certain changes are made in or events occur with respect to our ordinary shares (including any variation of share capital, any demerger, delisting, special dividend, rights issue or other event which may in the opinion of our Board, affect the current or future value of our ordinary shares), the number of shares subject to a DBSP Award may be adjusted as determined by our Board. In addition, upon such an event, our Board will determine: (i) whether and to what extent DBSP Awards which have not yet vested will vest; and (ii) the period of time during which any vested option may be exercised.

In the event of certain corporate transactions, including a general offer or a scheme of arrangement, the vesting and exercisability of all DBSP Awards will accelerate to the extent determined by our Board, after which, the DBSP Awards will be exercisable for one month (or such other period as or determined by our Board), following which they will lapse. However, if there is an internal reorganization, a DBSP Award will be exchanged in consideration of the grant of a new award which, as determined by our Board, is equivalent to the DBSP Award but relates to shares in a different company (whether the acquiring company or a different company).

Scheme Leavers

Except for where a participant is summarily dismissed (in which case the awards will be forfeited), the DBSP Awards usually will continue upon cessation of office or employment with us and vest in full on the normal vesting date as described above. Options will remain exercisable for a period of 12 months from the date of vesting.

Amendment and Termination

Our Board may, at any time, amend the rules of the DBSP, except that no amendment may be made: (i) which would be to the material disadvantage of the existing rights of participants unless every participant who may be affected by such amendment has been invited to indicate whether he or she approves of the amendment and the amendment is approved by a majority of such participants; or (ii) which would prevent the DBSP from being an employees' share scheme in accordance with the U.K. Companies Act 2006.

No DBSP Awards may be granted pursuant to the DBSP after the tenth anniversary of the date of Admission.

Our Remuneration Committee has approved awards under the DBSP in respect of bonuses awarded to certain of our executive officers for 2017. These awards are in the form of nil-cost option grants under the DBSP in the following amounts: Dr. Scots-Knight: 32,205 shares subject to the option; Mr. Jones: 22,058 shares subject to the option; Dr. MacKinnon: 22,588 shares subject to the option; and Mr. Sermon: 23,966 shares subject to the option. The options are scheduled to vest on the third anniversary of the date of grant.

The Mereo 2019 DBP

Our Board adopted the 2019 DBP on January 15, 2019.

Holding of Deferred Shares

Under the 2019 DBP, our ordinary shares may be purchased by participants using an after-tax bonus amount paid to them pursuant to Mereo's annual bonus plan or Deferred Shares.

Restrictions on Deferred Shares

The participants must hold the Deferred Shares for two years (or such other period as the Mereo Board may determine in advance) beginning on the date or dates on which a participant purchases those shares with the bonus. Participants must not transfer, assign, charge, sell or dispose of or encumber any Deferred Shares during this period except as permitted under the 2019 DBP or by our Board. The 2019 DBP permits participants to transfer Deferred Shares to an immediate family member or nominee to hold for them or as a beneficiary, or to a personal representative in the event of the participant's death.

Cessation of Employment

If a participant ceases employment with us, he or she must continue to hold the Deferred Shares in accordance with the restrictions under the 2019 DBP unless our Board disapply some or all of the restrictions in respect of some or all of that participant's Deferred Shares. Our Board will not have discretion to disapply any of the restrictions in the case of a participant who has been dismissed lawfully without notice or could have been so dismissed if he or she had not resigned.

Certain Transactions

Under the 2019 DBP, if any person obtains control of us (by means of holding shares, the possession of voting power, or as a result of any powers conferred by our Articles or other document relating to us), the restrictions on Deferred Shares under the 2019 DBP will cease to apply from that date unless our Board determines otherwise. Our Board may not extend the restrictions under the 2019 DBP.

If an internal reorganization occurs (whereby immediately after a change of control of Mereo, all or substantially all of the issued share capital of the acquiring company is owned directly or indirectly by the persons who were shareholders in Mereo before the change of control) and the Deferred Shares are exchanged for shares in another company, the rules of the 2019 DBP will apply to those shares as if they were Deferred Shares.

Regulatory Issues

The purchase or transfer of our ordinary shares under the 2019 DBP will be subject to obtaining any approval or consent required by AIM or Nasdaq (or any other relevant authority) and any restrictions imposed by our share dealing code, the AIM rules, or any applicable laws or regulations which impose restrictions on share dealing.

Amendment and Termination

Our Board may, at any time, amend the rules of the 2019 DBP or the terms of the Deferred Shares, except that no amendment may be made: (i) which would be to the material disadvantage of the existing rights of participants unless every participant who may be affected by such amendment has been invited to indicate whether he or she approves of the amendment and the amendment is approved by a majority of such participants; or (ii) which would prevent the 2019 DBP from being an employees' share scheme in accordance with the U.K. Companies Act 2006.

The 2019 DBP will terminate on the tenth anniversary of its adoption by our Board or at any earlier time by resolution of our Board. Termination of the 2019 DBP will be without prejudice to the existing rights of participants.

The Mereo 2019 Equity Incentive Plan (The 2019 EIP)

Our Board adopted the 2019 EIP on April 4, 2019. The Remuneration Committee of the Board (the "Remuneration Committee") made minor amendments to the rules of the 2019 EIP on May 16, 2019 prior to the first awards noted below.

Eligibility, Awards and Administration

The 2019 EIP provides for the grant of the following types of awards to executive directors and employees: (i) market value options; (ii) share appreciation rights; (iii) restricted stock / restricted stock unit awards; (iv) performance awards (awards subject to performance conditions) and (v) other share-based awards.

Subject to the terms of the 2019 EIP, awards can be granted in respect of ordinary shares, ADSs, cash or a combination thereof. References in this section to ordinary shares will be deemed references to ADSs, as applicable.

The 2019 EIP is administered by the Remuneration Committee unless the Remuneration Committee designates one or more directors as a subcommittee who may act for the Remuneration Committee if necessary. The Board may also choose to administer the 2019 EIP itself.

Vesting Schedule

Awards vest in accordance with the vesting schedule set for the relevant award in its award agreement.

Awards

On May 20, 2019, the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an aggregate of 255,500 ADSs to executives, at an exercise price of $5.40 per ADS. On July 23, 2019, the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 215,500 ADSs to executives, at an exercise price of $3.00 per ADS. On February 20, 2020, the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 565,000 ADSs to executives, at an exercise price of $1.84 per ADS.

In the normal course of events and subject to the participant's continued employment through each applicable vesting date, one fourth of each such market value option grant shall vest on the first anniversary of the grant date and the remainder shall vest in equal monthly installments over the three year period following the first anniversary. No performance conditions apply to such market value options.

Limitation on Awards

Subject to adjustment, the aggregate number of shares available for issuance under the 2019 EIP and the 2019 NED EIP will not exceed 9,590,180 ordinary shares. Beginning in the 2021 calendar year, the total number of ordinary shares available for issuance under the 2019 EIP and the 2019 NED EIP is increased on January 1st of each year in an amount equal to the lesser of (i) 4.5% of our issued and outstanding ordinary shares (measured as of January 1st of such year) and (ii) such number of ordinary shares as determined by the Remuneration Committee of the Board, or such other committee as may be designated by the Board, in its discretion.

Leavers

Unvested awards will usually lapse on termination of service (including voluntary departure) save for potentially different good leaver treatment. The effect of a participant's termination of service on outstanding awards, including whether the awards may be exercised, settled, vested, paid or forfeited, will be determined by the Remuneration Committee and may be set forth in the participant's award agreement.

Certain Transactions

In the event of certain corporate transactions, including a change of control, the Remuneration Committee may determine the appropriate treatment of an award, which may include (but is not limited to) it vesting in full, being settled in cash or being varied or replaced so as to relate to other assets (including shares in another company).

The number and type of securities subject to award and any exercise price may also be adjusted for various events that may affect the value of ordinary shares or ADSs and for changes in applicable laws, regulations or accounting principles.

Amendment and Termination

The Board may amend, alter, suspend, discontinue or terminate the 2019 EIP or any portion thereof at any time, subject to shareholder approval where required by applicable law or the rules of the stock market or exchange, if any, on which the shares are principally quoted or traded.

However, no such Board action that would materially adversely affect participants' rights under an outstanding award may be taken without such participants' consent, except to the extent that such action is made to cause the 2019 EIP to comply with applicable law, stock market or exchange rules and regulations or accounting or tax rules and regulations or to impose any recoupment provisions on any awards in accordance with the 2019 EIP.

No award may be granted under the 2019 EIP after the earliest to occur of: (i) the tenth anniversary of the effective date of the 2019 EIP; provided that to the extent permitted by the listing rules of any stock exchange on which we are listed, such ten-year term may be extended indefinitely so long as the maximum number of shares available for issuance under the 2019 EIP have not been issued; (ii) the maximum number of shares available for issuance under the 2019 EIP have been issued; and (iii) our Board terminates the 2019 EIP.

The Mereo 2019 NED Equity Incentive Plan (The 2019 NED EIP)

Our Board adopted the 2019 NED EIP on April 4, 2019. The Remuneration Committee made minor amendments to the rules of the 2019 NED EIP on May 16, 2019 prior to the first awards noted below.

Eligibility, Awards and Administration

The 2019 NED EIP provides for the grant of the following types of awards to non-executive directors: (i) market value options; (ii) share appreciation rights; (iii) restricted stock / restricted stock unit awards; (iv) performance awards (awards subject to performance conditions) and (v) other share-based awards.

Subject to the terms of the 2019 NED EIP awards can be granted in respect of ordinary shares, ADSs, cash or a combination thereof. References in this section to ordinary shares will be deemed references to ADSs, as applicable.

The 2019 NED EIP is administered by the Remuneration Committee unless the Remuneration Committee designates one or more directors as a subcommittee who may act for the Remuneration Committee if necessary. The Board may also choose to administer the 2019 NED EIP itself.

Vesting Schedule

Awards vest in accordance with the vesting schedule set for the relevant award in its award agreement.

Awards

Awards were granted under the 2019 NED EIP to non-executive directors on May 20, 2019 in respect of (in aggregate) 38,500 ADSs at a per ADS exercise price of $5.40. The terms of the awards include that, at our discretion, the awards will be settled either in ADSs (for payment of the exercise price) or in cash (by reference to the growth in value in excess of the reference exercise price). On July 23, 2019, the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 38,500 ADSs to non-executive directors, at an exercise price of $3.00 per ADS. On February 20, 2020, the Remuneration Committee of the Board agreed to grant awards in respect of market value options over an additional 77,000 ADSs to non-executive directors, at an exercise price of $1.84 per ADS.

In the normal course of events and subject to the participant holding the participant's current office (or being otherwise employed) through each applicable vesting date, such awards shall vest in equal monthly installments over the one year period following their grant date. No performance conditions apply to such awards.

Limitation on Awards

Subject to adjustment, the aggregate number of shares available for issuance under the 2019 EIP and the 2019 NED EIP will not exceed 4.5% of our issued and outstanding ordinary shares (such limit will be measured as of the date of grant of an award).

Leavers

Unvested awards will usually lapse on termination of office or service (including voluntary departure) save for potentially different good leaver treatment. The effect of a participant's termination of office or service on outstanding awards, including whether the awards may be exercised, settled, vested, paid or forfeited, will be determined by the Remuneration Committee and may be set forth in the participant's award agreement.

Certain Transactions

In the event of certain corporate transactions, including a change of control, the Remuneration Committee may determine the appropriate treatment of an award which may include (but is not limited to) it vesting in full, being settled in cash or being varied or replaced so as to relate to other assets (including shares in another company).

The number and type of securities subject to award and any exercise price may also be adjusted for various events that may affect the value of ordinary shares or ADSs and for changes in applicable laws, regulations or accounting principles.

Amendment and Termination

The Board may amend, alter, suspend, discontinue or terminate the 2019 NED EIP or any portion thereof at any time, subject to shareholder approval where required by applicable law or the rules of the stock market or exchange, if any, on which the shares are principally quoted or traded.

However, no such Board action that would materially adversely affect participants' rights under an outstanding award may be taken without such participants' consent, except to the extent that such action is made to cause the 2019 NED EIP to comply with applicable law, stock market or exchange rules and regulations or accounting or tax rules and regulations or to impose any recoupment provisions on any awards in accordance with the 2019 NED EIP.

No Award may be granted under the 2019 NED EIP after the earliest to occur of: (i) the tenth anniversary of the effective date of the 2019 NED EIP; provided that to the extent permitted by the listing rules of any stock exchange on which we are listed, such ten-year term may be extended indefinitely so long as the maximum number of shares available for issuance under the 2019 NED EIP have not been issued; (ii) the maximum number of shares available for issuance under the 2019 NED EIP have been issued; and (iii) our Board terminates the 2019 NED EIP.

The following table summarizes: (i) the outstanding number of options and awards under the equity incentive plans; and (ii) the number of shares granted to directors, executive officers, and non-executive directors, as of March 1, 2020:

Name	Ordinary Shares (including those represented by ADSs)	Ordinary Shares Underlying Options	Exercise Price Per Ordinary Share (£)	ADSs Underlying Options	Exercise Price Per ADS ($)	Grant Date	Expiration Date
Denise Scots-Knight, Ph.D.	—	1,544,745	1.29	—	—	September 25, 2015	September 25, 2025
	—	346,154	nil	—	—	June 9, 2016	June 9, 2026
	—	25,319	nil	—	—	April 4, 2017	April 4, 2021
	—	32,205	nil	—	—	April 26, 2018	January 31, 2022
	—	—	—	87,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	87,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	175,000	1.84	February 20, 2020	February 20, 2030
	935,999	—	—	—	—	—	—
Jill Henrich	—	—	—	40,000	5.40	May 20, 2019	May 20, 2029
	10,380	—	—	—	—	—	—
Richard Jones	—	650,000	3.03	—	—	April 4, 2017	April 4, 2027
	—	185,950	nil	—	—	April 4, 2017	June 9, 2026
	—	22,058	nil	—	—	April 26, 2018	January 31, 2022
	—	—	—	27,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	27,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	85,000	1.84	February 20, 2020	February 20, 2030
	66,915	—	—	—	—	—	—
Alastair MacKinnon, MBBS	—	772,371	1.29	—	—	September 25, 2015	September 25, 2025
	—	175,622	nil	—	—	June 9, 2016	June 9, 2026
	—	17,127	nil	—	—	April 4, 2017	April 4, 2021
	—	22,588	nil	—	—	April 26, 2018	January 31, 2022
	—	—	—	27,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	27,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	85,000	1.84	February 20, 2020	February 20, 2030
	507,920	—	—	—	—	—	—
John Richard	—	772,371	1.29	—	—	September 25, 2015	September 25, 2025
	—	50,000	2.21	—	—	June 1, 2016	June 1, 2026
	—	—	—	27,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	27,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	85,000	1.84	February 20, 2020	February 20, 2030
	314,658	—	—	—	—	—	—
Charles Sermon	—	772,371	1.29	—	—	September 25, 2015	September 25, 2025
	—	202,347	nil	—	—	June 9, 2016	June 9, 2026
	—	19,734	nil	—	—	April 4, 2017	April 4, 2021
	—	23,966	nil	—	—	April 26, 2018	January 31, 2022
	—	—	—	27,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	27,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	85,000	1.84	February 20, 2020	February 20, 2030
	569,859	—	—	—	—	—	—

Name	Ordinary Shares (including those represented by ADSs)	Ordinary Shares Underlying Options	Exercise Price Per Ordinary Share (£)	ADSs Underlying Options	Exercise Price Per ADS ($)	Grant Date	Expiration Date
Alexandra (Wills) Hughes-Wilson	—	30,769	3.25	—	—	May 2, 2018	May 2, 2028
	—	9,231	3.25	—	—	May 2, 2018	May 2, 2028
	—	—	—	18,000	5.40	May 20, 2019	May 20, 2029
	—	—	—	18,000	3.00	July 23, 2019	July 23, 2029
	—	—	—	50,000	1.84	February 20, 2020	February 20, 2030
	16,250	—	—	—	—	—	—
Peter Fellner	—	1,692,673	1.29	—	—	September 29, 2015	September 29, 2025
	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	65,500	—	—	—	—	—	—
Peter Bains	—	710,583	1.29	—	—	September 29, 2015	September 29, 2025
	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	206,796	—	—	—	—	—	—
Paul Blackburn	—	236,974	1.84	—	—	May 11, 2016	May 11, 2026
	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	22,624	—	—	—	—	—	—
Anders Ekblom	—	216,264	1.29	—	—	September 29, 2015	September 29, 2025
	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	189,702	—	—	—	—	—	—
Kunal Kashyap	—	216,264	1.29	—	—	September 29, 2015	September 29, 2025
	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	1,497,735	—	—	—	—	—	—
Deepika R. Pakianathan, Ph.D	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030
	1,283,670	—	—	—	—	—	—
Michael S. Wyzga	—	—	—	5,500	5.40	May 20, 2019	May 20, 2029
	—	—	—	5,500	3.00	July 23, 2019	July 23, 2029
	—	—	—	11,000	1.84	February 20, 2020	February 20, 2030

Incentive Award Arrangements

We have no incentive award arrangements in place as of the date of this prospectus.

Non-Executive Directors Remuneration

The following table sets forth the remuneration paid during 2019 to the current non-executive directors, all of which was in the form of annual fees:

Name	Annual Fees (£)
Peter Bains	46,667
Paul Blackburn	48,000
Anders Ekblom	48,000
Peter Fellner	100,000
Kunal Kashyap	40,000
Michael S. Wyzga	27,590
Deepika R. Pakianathan	30,349

Frank Armstrong served as a non-executive director until his resignation on February 11, 2019. Between January 1, 2019 and February 11, 2019 Frank Armstrong was paid total remuneration of £19,959.

Non-Executive Director Service Contracts

The remuneration of the non-executive directors is determined by our board as a whole, based on a review of current practices in other companies. We have entered into service contracts with our directors for their services, which are subject to a three-month termination period. There are no arrangements under which any non-executive director is entitled to receive compensation upon the early termination of his or her appointment.

Pension, Retirement or Similar Benefits

We operate a defined contribution pension scheme which is available to all employees. We make payments of up to 10% of basic salary for executives (up to 15% for our Chief Executive Officer) into any pension scheme or similar arrangement as the participating executive may reasonably request (or a payment in lieu thereof) Such payments are not counted for the purposes of determining bonuses or awards under the LTIP. The total amount set aside or accrued by us to provide pension, retirement or similar benefits to our current directors and our senior management with respect to 2018 was £145,724, which represents contributions made by us in 2018 in respect of a defined contribution scheme.

Insurance and Indemnification

To the extent permitted by the U.K. Companies Act 2006, we are empowered to indemnify our directors against any liability they incur by reason of their directorship. We maintain directors' and officers' insurance to ensure such persons against certain liabilities. We have entered into a deed of indemnity with each of our directors.

Insofar as indemnification of liabilities arising under the Securities Act may be permitted to our board, executive officers, or persons controlling us pursuant to the forgoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

PRINCIPAL SHAREHOLDERS

The following table sets forth information relating to the beneficial ownership of our ordinary shares as of March 1, 2020 (except as otherwise indicated) by:

- each person, or group of affiliated persons, known by us to own beneficially 3% or more of our outstanding ordinary shares; and
- each member of our Board and each of our other executive officers.

The number of ordinary shares beneficially owned by each entity, person, board member, or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days of March 1, 2020 through the exercise of any option, warrant or other right. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all ordinary shares held by that person.

The percentage of ordinary shares beneficially owned before the offering is computed on the basis of 124,507,857 ordinary shares outstanding as of March 1, 2020. As of the date of this prospectus, our share capital consists of 124,507,857 fully subscribed and paid up shares. Ordinary shares that a person has the right to acquire within 60 days of March 1, 2020 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all board members and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o Mereo BioPharma Group plc, Fourth Floor, One Cavendish Place, London W1G 0QF, United Kingdom.

Name and address of beneficial owner	Number of Ordinary Shares Beneficially Owned as of March 1, 2020(1)	Percentage of Ordinary Shares Beneficially Owned
3% or Greater Shareholders:		
Link Fund Solutions Limited(2)	19,031,915	15.3%
Invesco Asset Management(3)	17,392,000	14.0
Novartis Pharma AG(4)	15,703,871	12.6
Aspire Capital Fund, LLC(5)	14,295,520	11.5
Boxer Capital, LLC(6)	12,252,715	9.8
Schroder UK Public Private Trust PLC(7)	7,845,873	6.3
Executive Officers and Directors:		
Denise Scots-Knight, Ph.D.(8)	2,480,744	2.0
Richard Jones	66,915	*
Alastair MacKinnon, MBBS(9)	1,280,291	1.0
John Richard(10)	1,130,789	*
Charles Sermon(11)	1,342,230	1.0
Jill Henrich	10,380	*
Peter Fellner, Ph.D.(12)	1,758,173	1.4
Peter Bains(13)	917,379	*
Paul Blackburn(14)	259,598	*
Anders Ekblom, M.D., Ph.D.(15)	259,598	*
Kunal Kashyap(16)	1,713,999	1.4
Alexandra (Wills) Hughes-Wilson(17)	16,250	*
Deepika R. Pakianathan, Ph.D (18)	1,283,670	1.0
Michael S. Wyzga	—	—

* Indicates beneficial ownership of less than 1% of the total outstanding ordinary shares.

(1) Ordinary shares figures include ordinary shares represented by ADSs.

(2) Until October 15, 2019, consisted of (i) 19,153,667 ordinary shares held by LF Woodford Equity Income Fund, a subfund of LF Woodford Investment Fund (the "Fund") and (ii) 7,845,873 Mereo ordinary shares held by Woodford Patient Capital Trust, Plc ("WPCT"). On October 15, 2019, Link Fund Solutions Limited ("Link"), as authorized corporate director of the Fund, announced its decision to wind the Fund up as soon as practicable by way of an orderly realization of the Fund's assets (the "Winding-up Announcement"). This decision came after Link's decision on June 3, 2019 to suspend redemptions and other dealings in shares in the Fund as a result of an increased level of redemptions from the Fund. Also on October 15, 2019, Woodford Investment Management Limited ceased to be the investment manager for the Fund. It was further announced that Link has allocated the Fund's assets into two portfolios, one comprised of listed assets and one comprised of unlisted and certain highly illiquid listed assets. According to the Winding-Up Announcement, BlackRock Advisors (UK) Limited has been appointed to sell the assets in the first portfolio during the period until winding up of the Fund commences. In addition, PJT Partners (UK) Limited will continue to assist Link in selling the assets in the second portfolio. On January 18, 2020, the Fund was formally moved into wind-up, Schroder Investment Management succeeded Woodford as investment manager of WPCT, and WPCT was renamed Schroder UK Public Private Trust PLC. See footnote (5) below. The first capital distribution by Link was paid to investors on January 30, 2020, and further capital distributions are expected to be made as and when suitable amounts of cash have been raised from the sale of the remaining assets of the Fund. As a direct or indirect result of the foregoing, all or part of the shares previously held and managed by Woodford may be sold or otherwise disposed of, any of which may occur imminently. In addition, while Link retains control over approximately 15.3% of our shares (consisting of the shares previously held by the Fund), it will continue to exert significant influence over all matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. Link's interests may conflict with your interests, including as a direct or indirect result of the above-described developments. Based on information known to Mereo and a Form TR 1 provided to Mereo in February 2020, the share holdings consist of (i) 16,478,248 ordinary shares held by BlackRock Investment Management (Transition) and (ii) 2,553,667 ordinary shares held by Link. The address of Link is 6th Floor, 65 Gresham Street, London, EC2V 7NQ, United Kingdom.

(3) The share holdings of Invesco Asset Management consist of (i) 12,546,466 ordinary shares beneficially owned by Invesco High Income Fund and (ii) 4,843,534 ordinary shares beneficially owned by Invesco Income Fund. Beneficial ownership information is based on information known to Mereo. The address of Invesco Asset Management Limited is 30 Finsbury Square, London EC2A 1AG, United Kingdom.

(4) Consists of 15,703,871 ordinary shares held by Novartis. Beneficial ownership information is based on information known to Mereo. The address of Novartis AG is Lichtstrasse 35, 4056 Basel, Switzerland.

(5) Consists entirely of ordinary shares held by Aspire Capital, which consists of the Initial Shares and the Commission Shares purchased by Aspire Capital pursuant to the Purchase Agreement. See "The Aspire Capital Transaction." Aspire Capital Partners LLC ("Aspire Partners") is the Managing Member of Aspire Capital. SGM Holdings Corp. ("SGM") is the managing member of Aspire Partners. Mr. Steven G. Martin is the president and sole shareholder of SGM, as well as a principal of Aspire Partners. Mr. Erik J. Brown is the president and sole shareholder of Red Cedar Capital Corp. ("Red Cedar") which is a principal of Aspire Partners. Mr. Christos Komissopoulos is president and sole shareholder of Chrisko Investors Inc. ("Chrisko"), which is a principal of Aspire Partners. Mr. William F. Blank, III is president and sole shareholder of WML Ventures Corp. ("WML Ventures"), which is a principal of Aspire Partners. Each of Aspire Partners, SGM, Red Cedar, Chrisko, WML Ventures, Mr. Martin, Mr. Brown, Mr. Komissopoulos and Mr. Blank may be

deemed to be a beneficial owner of the ordinary shares held by Aspire Capital. Each of Aspire Partners, SGM, Red Cedar, Chrisko, WML Ventures, Mr. Martin, Mr. Brown, Mr. Komissopoulos and Mr. Blank disclaims beneficial ownership of the ordinary shares held by Aspire Capital. The address of Aspire Capital is 155 North Wacker Dr. Suite 1600, Chicago, IL 60606.

(6) Consists of 12,252,715 ordinary shares held by Boxer Capital based on a report on Form 13G filed with the SEC on March 2, 2020. See also "Prospectus Summary—Recent Developments—Boxer Capital Transaction." The address of Boxer Capital is 11682 El Camino Real, Suite 320, San Diego, CA 92130.

(7) Consists entirely of ordinary shares. Beneficial ownership information for Schroder UK Public Private Trust PLC is based on information known to Mereo. Schroder Investment Management is the investment manager for Schroder UK Public Private Trust PLC. The address of Schroder Investment Management Ltd. is 1 London Wall Place, London, EC2Y 5AU, UK.

(8) Includes options to purchase 1,544,745 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020. Includes 6,300 ordinary shares held by Dr. Scots-Knight's husband.

(9) Includes options to purchase 772,371 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(10) Includes options to purchase 816,131 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(11) Includes options to purchase 772,371 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(12) Includes options to purchase 1,692,673 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(13) Includes options to purchase 710,583 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(14) Includes options to purchase 236,974 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(15) Includes options to purchase 216,264 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(16) Includes options to purchase 216,264 ordinary shares that are or will be immediately exercisable within 60 days of March 1, 2020.

(17) Includes 8,000 ordinary shares held by Ms. Hughes-Wilson's husband.

(18) Delphi Ventures VIII, L.P. ("Delphi VIII") directly holds 254,327 ADSs. Delphi BioInvestments VIII, L.P. ("DBI VIII") directly holds 2,407 ADSs. Delphi Management Partners VIII, L.L.C. ("DMP VIII") is the general partner of Delphi VIII and DBI VIII (together, the "Delphi VIII Funds"), and may be deemed to have sole voting and dispositive power over the ADSs held by the Delphi VIII Funds. DMP VIII and each of James J. Bochnowski, David L. Douglass, Douglas A. Roeder and Deepika R. Pakianathan, Ph.D., the Managing Members of DMP VIII who may be deemed to share voting and dispositive power over the reported securities, disclaim beneficial ownership of the reported securities held by the Delphi VIII Funds except to the extent of any pecuniary interest therein.

To our knowledge, and other than changes in percentage ownership as a result of the shares issued in connection with our initial public offering in the United Kingdom, the Merger and the transactions with Aspire Capital and Boxer Capital, there has been no significant change in the percentage ownership held by the major shareholders listed above in the last three years, except as discussed under the heading "Related Party Transactions."

RELATED PARTY TRANSACTIONS

The following is a description of related party transactions we have entered into with the beneficial owners of 3% or more of our ordinary shares, which are our only voting securities, and senior management and members of our Board, since our incorporation.

Subscription Agreement

On July 28, 2015, we entered into a subscription agreement for ordinary shares (the "Subscription Agreement"), with Invesco Perpetual High Income Fund, Woodford Patient Capital Trust plc and LF Equity Income Fund (collectively, the "Investors"), and Novartis. Under the Subscription Agreement, we initially issued 10,869,566 ordinary shares to the Investors at a price per ordinary share of £1.84 for total aggregate cash proceeds of £20.0 million, and 3,849,000 ordinary shares to Novartis in connection with the asset purchase agreements described under "—Other Transactions with Novartis."

The Subscription Agreement provided for us to draw down additional investments from the Investors. The Subscription Agreement also obligated us, upon the issuance of additional ordinary shares, to issue to Novartis the number of ordinary shares required to maintain Novartis' percentage ownership of us at 19.5%, with the maximum aggregate number of ordinary shares that may be issued to Novartis under the Subscription Agreement set at 14,000,000. On June 9, 2016, we issued an additional 30,727,361 ordinary shares to the Investors pursuant to the drawdown and 8,697,480 ordinary shares to Novartis to maintain its percentage ownership following the drawdown and an additional private placement of our ordinary shares, for aggregate cash proceeds to us of £72.6 million. In accordance with its terms, the Subscription Agreement was terminated upon the admission of our ordinary shares to trading on AIM on June 9, 2016. In lieu of the remaining ordinary shares that we were obligated to issue to Novartis under the Subscription Agreement, Novartis become entitled to receive additional shares upon conversion of the Novartis Notes (part of which were converted into ordinary shares in April 2017, and the remainder of which were converted into ordinary shares in June 2019). See "—Other Transactions with Novartis—Novartis Notes."

Other Transactions with Novartis

On July 28, 2015, we entered into asset purchase agreements with Novartis to purchase each of setrusumab, acumapimod, and leflutrozole. See "Business—Material Agreements—Novartis Agreements." As consideration, we issued 3,849,000 ordinary shares to Novartis.

Novartis Notes

On June 3, 2016, we issued 3,463,563 Novartis Notes to Novartis, for aggregate proceeds to us of £3.5 million. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Indebtedness—Novartis Notes" for additional information on the terms of the Novartis Notes.

On April 6, 2017, Novartis delivered to us a notice of conversion with respect to £1,398,552 aggregate principal amount of Novartis Notes. Pursuant to such notice, on April 26, 2017, £1,398,552 aggregate principal amount of Novartis Notes was converted into 632,829 fully paid ordinary shares. Additionally, in connection with such conversion, we issued 588,532 Bonus Shares to Novartis.

On June 6, 2019, Novartis delivered to us a notice of conversion with respect to the aggregate principal amount and interest of the Novartis Notes. Pursuant to such notice, on June 21, 2019, the aggregate principal amount and interest of £2,367,004 due under the Novartis Notes was converted into 1,071,042 fully paid ordinary shares at the fixed conversion price of £2.21 per share. Additionally, in connection with such conversion, we issued 864,988 Bonus Shares to Novartis. At June 30, 2019, there was no further liability under the Novartis Notes which were converted in full as at that date.

On February 10, 2020, we entered into a £3,841,479 convertible loan note instrument relating to the issue of 3,841,479 New Novartis Notes. The New Novartis Notes are convertible at any time at a fixed price of £0.265 per ordinary share. In addition, on February 10, 2020, in connection with the New Novartis Notes, we entered into a warrant instrument with Novartis to issue 1,449,614 ordinary shares at a weighted average exercise price of £0.265 per ordinary share. These warrants will be capable of exercise until February 10, 2025. The New Novartis Notes and the warrants include an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

Supply Payments

In 2016, we paid Novartis a total of £968,219. In 2017, we paid Novartis a total of £4,610,106 for the manufacture and supply of clinical trial material. No payments were made from Mereo to Novartis in 2018.

Novartis Board Observer Rights

Pursuant to our Articles, for as long as Novartis holds not less than one percent of our issued share capital, Novartis may appoint one observer who may attend, but not participate or vote in, any meeting of our Board.

Transactions with Our Executive Officers and Directors

We have entered into employment agreements or consultancy agreements with certain of our executive officers. See “Management—Compensation—Executive Officer Employment Agreements.”

Indemnity Agreements

We have entered into deeds of indemnity with each of our directors. See “Management—Insurance and Indemnification.”

Related Person Transaction Policy

Our Board has a written related person transaction policy, which sets forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, any transaction or proposed transactions between us and a related person that are material to us or the related person, including without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit and risk committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm’s length transaction and the extent of the related person’s interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

DESCRIPTION OF SHARE CAPITAL AND ARTICLES OF ASSOCIATION

General

We were incorporated as a private limited company with the legal name Mereo BioPharma Group Limited under the laws of England and Wales on March 10, 2015 with the company number 09481161. On June 3, 2016, we re-registered as a public limited company with the legal name Mereo BioPharma Group plc. Our principal executive offices are located at 4th Floor, One Cavendish Place, London, W1G 0QF, United Kingdom. The principal legislation under which we operate and our ordinary shares are issued is the U.K. Companies Act 2006.

Share Capital

As of March 1, 2020, our issued share capital was £373,523 equivalent to 124,507,857 ordinary shares. The nominal value of our ordinary shares, including ordinary shares in the form of ADSs, is £0.003 per ordinary share. Each issued ordinary share is fully paid. 22,102,085 of our ordinary shares are represented by 4,420,417 ADSs.

According to the resolutions passed in our annual general meeting held on June 19, 2019, our Board was authorized to (i) allot new shares or grant rights to subscribe for, or convert other securities into, shares up to an amount equal to 100% of our total issued ordinary share capital as at May 17, 2019, comprising ordinary shares with an aggregate nominal value of £288,070.78; and (ii) allot equity securities for cash without first being required to offer them to existing ordinary shareholders up to the same aggregate maximum nominal amount of £288,070.78 (including, for this purpose, the sale on a non-pre-emptive basis of any shares held in treasury). In each case, the authorization will last until the next annual general meeting or, if earlier, 15 months from the date of the passing of these resolutions. In addition, according to written resolutions of our shareholders passed on June 2, 2016, our Board was authorized (i) to allot new ordinary shares up to a maximum nominal value of £350,000.00; and (ii) allot equity securities for cash without first being required to offer them to existing ordinary shareholders up to the same aggregate maximum nominal amount of £350,000.00. In each case, the authorization will last until the fifth anniversary of the passing of these written resolutions. The Initial Shares, the Commission Shares and the 12,252,715 ordinary Shares issued to Boxer capital in February 2020 were issued using part of the June 19, 2019 authority. As of March 1, 2020, authorization to allot ordinary shares up to a maximum aggregate nominal amount of £323,768 remained under the June 19, 2019 and June 2, 2016 authorities, representing up to 107,922,693 ordinary shares. To the extent that ordinary shares are issued pursuant to this offering during the remaining periods of the June 19, 2019 and June 2, 2016 authorities, those issuances will utilize the unutilized amount from time to time of whichever authority is used for the relevant issuance. If either authority is exhausted or expires, further shareholder authorities may be required for the future issuances of ordinary shares.

Options

As of December 31, 2019, there were options to purchase 12,430,806 ordinary shares outstanding under our equity incentive plans with a weighted average exercise price of £1.45 per ordinary share. The options generally lapse after 10 years from the date of the grant.

As of December 31, 2019, there were options to purchase 782,400 ADSs outstanding under our equity incentive plans with a weighted average exercise price of $3.51 per ADS. The options generally lapse after 4 years from the date of grant.

As of December 31, 2019, there were nil-cost options to purchase 162,997 ordinary shares outstanding under our DSP, which generally lapse one year after vesting.

On February 20, 2020, we issued options to purchase 565,000 ADSs with an exercise price of $1.84 per ADS to employees pursuant to the 2019 EIP. One quarter of the options become exercisable on the first anniversary of their grant date and, thereafter, vest in equal monthly installments over three years.

On February 20, 2020, we also issued options to purchase 77,000 ADSs with an exercise price of $1.84 per ADS to non-employees pursuant to the 2019 NED EIP. These options vest in equal monthly installments over the year following their grant date.

Each of our equity incentive plans includes provisions for potential adjustment of outstanding equity awards in connection with certain corporate transactions, in order to prevent dilution or enlargement of the intended benefits under such plans.

Novartis Notes

On June 3, 2016, we issued 3,463,563 notes to Novartis (the “Novartis Notes”). The Novartis Notes included an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

On April 6, 2017, Novartis delivered to us a notice of conversion with respect to £1,398,552 aggregate principal amount of Novartis Notes. Pursuant to such notice, on April 26, 2017, £1,398,552 aggregate principal amount of Novartis Notes was converted into 632,829 fully paid ordinary shares. Additionally, in connection with such conversion, we issued 588,532 ordinary shares to Novartis.

On June 6, 2019 Novartis delivered to us a notice of conversion with respect to the aggregate principal amount and interest of the Novartis Notes. Pursuant to such notice, on June 21, 2019 the aggregate principal amount and interest of £2,367,004 due under the Novartis Notes was converted into 1,071,042 fully paid ordinary shares at the fixed conversion price of £2.21 per share. Additionally, in connection with such conversion, we issued 864,988 ordinary shares to Novartis. At June 30, 2019, there was no further liability under the Novartis Notes which were converted in full as at that date.

On February 10, 2020, we entered into a £3,841,479 convertible loan note instrument relating to the issue of 3,841,479 New Novartis Notes. The New Novartis Notes are convertible at any time at a fixed price of £0.265 per ordinary share. The New Novartis Notes included an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

Warrants

As of December 31, 2019, there were warrants to purchase 1,243,908 ordinary shares at a weighted average exercise price of £2.95 per ordinary share, including 621,954 warrants exercisable by Silicon Valley Bank and 621,954 warrants exercisable by Kreos Capital V (UK) Limited. These warrants will be capable of exercise until October 1, 2028. The warrants include an adjustment provision to prevent the dilution of the ordinary shares issuable to Silicon Valley Bank and Kreos Capital V (UK) Limited under certain circumstances. Following the issuance of the New Novartis Notes and the Initial Shares under the Aspire Purchase Agreement, we expect to issue an additional 203,878 warrants at an average exercise price of £2.95 per ordinary share, including 101,939 warrants exercisable by Silicon Valley Bank and 101,939 warrants exercisable by Kreos Capital V (UK) Limited.

As of December 31, 2019, there were warrants to purchase 41,286 ordinary shares at an exercise price of £0.003 per ordinary share exercisable by The Alpha-1 Project, Inc.

On February 10, 2020, in connection with the New Novartis Notes, we entered into a warrant instrument with Novartis to issue 1,449,614 ordinary shares at a weighted average exercise price of

£0.265 per ordinary share. These warrants will be capable of exercise until February 10, 2025. The warrants include an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

Ordinary Shares

The following summarizes the rights of holders of our ordinary shares:

- each holder of our ordinary shares is entitled to one vote per ordinary share at a meeting of shareholders (provided that certain shareholders each have their votes limited to 19.5% of the total voting share capital and any votes which would have otherwise been exercisable by them shall be deemed to be held and exercisable by the other shareholders, other than those and certain other shareholders, on a pro rata basis);
- the holders of the ordinary shares shall be entitled to receive notice of, attend, speak, and vote at our general meetings; and
- holders of our ordinary shares are entitled to receive such dividends as are recommended by our directors and declared by our shareholders.

Registered Shares

We are required by the U.K. Companies Act 2006 to keep a register of our shareholders. Under English law, the ordinary shares are issued when the name of the shareholder is entered in our share register. The share register therefore is prima facie evidence of the identity of our shareholders, and the shares that they hold. The share register generally provides limited, or no, information regarding the ultimate beneficial owners of our ordinary shares. Our share register is maintained by our registrar, Link Asset Services.

Holders of our ADSs will not be treated as shareholders and their names will therefore not be entered in our share register. The depositary, the custodian or their nominees will be the holder of the ordinary shares underlying our ADSs. For discussion on our ADSs and ADS holder rights see “Description of American Depository Shares” in this prospectus. Holders of our ADSs have a right to receive the ordinary shares underlying their ADSs as discussed in “Description of American Depository Shares” in this prospectus.

Under the U.K. Companies Act 2006, we must enter an allotment of ordinary shares in our share register as soon as practicable and in any event within two months of the allotment. We will perform all procedures necessary to update the share register with the number of ordinary shares to be issued to the depositary upon the closing of the offering. We also are required by the U.K. Companies Act 2006 to register a transfer of ordinary shares (or give the transferee notice of and reasons for refusal as the transferee may reasonably request) as soon as practicable and in any event within two months of receiving notice of the transfer.

We, any of our shareholders or any other affected person may apply to the court for rectification of the share register if:

- the name of any person, without sufficient cause, is entered in or omitted from our register of members; or
- a default is made or unnecessary delay takes place in entering on the register the fact of any person having ceased to be a member or on which we have a lien, provided that such refusal does not prevent dealings in the shares taking place on an open and proper basis.

Pre-emptive Rights

English law generally provides shareholders with pre-emptive rights when new shares are issued for cash; however, it is possible for the articles of association, or shareholders by special resolution, to exclude pre-emptive rights. Such an exclusion of pre-emptive rights may be for a maximum period of

up to five years from the date of adoption of the articles of association, if the exclusion is contained in the articles of association, or from the date of the shareholder resolution, if the exclusion is by shareholder resolution. In either case, this exclusion would need to be renewed by our shareholders upon its expiration (i.e., at least every five years).

On June 19, 2019, our shareholders, in addition to the authorization noted above, authorized our Board to exclude pre-emptive rights for a period until the end of our next annual general meeting or, if earlier, 15 months from June 19, 2019 in respect of the allotment of ordinary shares or the grant of rights to subscribe for or convert securities into ordinary shares up to a maximum aggregate nominal amount of £288,070.78. The nominal value of our ordinary shares is £0.003 per ordinary share. For further information relating to the Company's existing authority to issue additional ordinary shares, see "—Share Capital." On May 26, 2016, our shareholders authorized our Board to exclude pre-emptive rights up to a maximum aggregate nominal amount of £350,000, which expires on May 26, 2021.

As at March 1, 2020, non pre-emptive authorization up to a maximum aggregate nominal amount of £323,768 remained available to the Company.

Articles of Association

The following is a description of our Articles as at the date hereof.

Shares and Rights Attaching to Them

Objects

The objects of our company are unrestricted.

Share Rights

Subject to any special rights attaching to shares already in issue, our shares may be issued with or have attached to them any rights or restrictions as we may resolve by ordinary resolution of the shareholders or, failing such determination, as the board may determine.

Voting Rights

Without prejudice to any special rights, privileges or restrictions as to voting rights attached to any shares forming part of our share capital from time to time, the voting rights attaching to shares are as follows:

- on a show of hands, every shareholder who (being an individual) is present in person and (being a corporation) is present by a duly authorized representative shall have one vote;
- on a show of hands, each proxy present in person has one vote for and one vote against a resolution if the proxy has been duly appointed by more than one shareholder and the proxy has been instructed by one or more of those shareholders to vote for the resolution and by one or more other of those shareholders to vote against it;
- on a show of hands, each proxy present in person has one vote for and one vote against a resolution if the proxy has been duly appointed by more than one shareholder entitled to vote on the resolution and either: (1) the proxy has been instructed by one or more of those shareholders to vote for the resolution and has been given any discretion by one or more other of those shareholders to vote and the proxy exercises that discretion to vote against it; or (2) the proxy has been instructed by one or more of those shareholders to vote against the resolution and has been given any discretion by one or more other of those shareholders to vote and the proxy exercises that discretion to vote for it; or
- on a poll every shareholder who is present in person or by proxy shall have one vote for each share of which he or she is the holder, provided that certain shareholders each have their votes limited to 19.5% of the total voting share capital and any votes which would have otherwise been exercisable by them shall be deemed to be held and exercisable by the other shareholders, other than those and certain other shareholders, on a pro rata basis.

At any general meeting a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is demanded. Subject to the provisions of the U.K. Companies Act 2006, as described in "Differences in Corporate Law—Voting Rights" in this prospectus, a poll may be demanded by:

- the chairman of the meeting;
- the directors;
- two or more persons having the right to vote on the resolution; or
- a person or persons representing not less than 10% of the total voting rights of all shareholders having the right to vote on the resolution.

Restrictions on Voting

No shareholder shall (unless the Directors otherwise determine) be entitled to vote at any general meeting in respect of any share held by him or her unless all sums payable by him or her in respect of that share have been paid.

The board may from time to time make calls upon the shareholders in respect of any money unpaid on their shares and each shareholder shall (subject to at least 14 days' notice specifying when and how the payment is to be made) pay at the time or times so specified the amount called on his or her shares.

Dividends

We may, subject to the provisions of the U.K. Companies Act 2006 and our Articles, by ordinary resolution of shareholders declare dividends out of profits available for distribution in accordance with the respective rights of shareholders but no such dividend shall exceed the amount recommended by the directors. The board may from time to time pay shareholders such interim dividends as appear to the board to be justified by our financial position but, if at any time, our share capital is divided into different classes the board may not pay such interim dividends in respect of those shares which confer on the holders thereof deferred or non-preferential rights with regard to dividends if, at the time of payment, any preferential dividend is in arrears.

Subject to any special rights attaching to or the terms of issue of any share, all dividends shall be declared and paid according to the amounts paid up on the shares and shall be apportioned and paid pro rata according to the amounts paid up on the shares during any part or parts of the period in respect of which the dividend is paid.

No dividend or other moneys payable by us on or in respect of any share shall bear interest against us unless otherwise provided by the rights attached to the share or the provisions of another agreement between the shareholder and us. Any dividend unclaimed after a period of 12 years from the date such dividend became due for payment shall be forfeited and cease to remain owing.

Dividends may be declared or paid in any currency and the board may decide the rate of exchange for any currency conversions that may be required, and how any costs involved are to be met, in relation to the currency of any dividend.

Any general meeting declaring a dividend may by ordinary resolution of shareholders, upon the recommendation of the board, direct payment or satisfaction of such dividend wholly or in part by the distribution of non-cash assets of equivalent value, including shares or other securities in any company.

The directors may, if authorized by an ordinary resolution of shareholders, offer any holders of ordinary shares the right to elect to receive in lieu of a dividend, or part of a dividend, an allotment of ordinary shares credited as fully paid up.

Change of Control

There is no specific provision in our Articles that would have the effect of delaying, deferring, or preventing a change of control.

Distributions on Winding Up

If we are in liquidation, the liquidator may, if authorized by a special resolution of shareholders and any other authority required at law, divide among shareholders (excluding us to the extent we are a shareholder by virtue only of holding treasury shares) in specie or in kind the whole or any part of our assets (whether or not the assets consist of property of one kind or consist of properties of different kinds and the liquidator may for such purpose set such value as the liquidator deems fair upon any one or more class or classes of property and may determine how such division shall be carried out as between the shareholders or different classes of shareholders), or vest the whole or any part of such assets in trustees upon such trusts for the benefit of the shareholders as the liquidator determines (and our liquidation may be closed and we may be dissolved), but no shareholder shall be compelled to accept any shares or other assets upon which there is any liability.

Variation of Rights

All or any of the rights and privileges attached to any class of shares issued may be varied or abrogated only with the consent in writing of the holders of not less than three-fourths in nominal value of the issued shares of that class (excluding any shares held as treasury shares) or by special resolution passed at a separate general meeting of the holders of such shares, subject to the other provisions of the U.K. Companies Act 2006 and the terms of their issue. The U.K. Companies Act 2006 also provides a right to object to the variation of the share capital by the shareholders who did not vote in favor of the variation. Should 15% or more of the shareholders of the issued shares in question apply to the court to have the variation cancelled, the variation shall have no effect unless and until it is confirmed by the court.

Alteration to Share Capital

We may, by ordinary resolution of shareholders, consolidate all or any of our share capital into shares of larger amount than our existing shares, or sub-divide our shares or any of them into shares of a smaller amount. We may, by special resolution of shareholders, confirmed by the court, reduce our share capital or any capital redemption reserve or any share premium account in any manner authorized by the U.K. Companies Act 2006. We may redeem or purchase all or any of our shares as described in "—Other U.K. Law Considerations—Purchase of Own Shares."

Preemption Rights

In certain circumstances, our shareholders may have statutory preemption rights under the U.K. Companies Act 2006 in respect of the allotment of new shares as described in "—Pre-emptive Rights" and "—Differences in Corporate Law—Pre-emptive Rights" in this prospectus.

Transfer of Shares

Any shareholder holding shares in certificated form may transfer all or any of his or her shares by an instrument of transfer in any usual form or any other form approved by the board. Any written instrument of transfer shall be signed by or on behalf of the transferor and (in the case of a partly paid share) the transferee.

In the case of uncertificated shares, the directors may take such action as they consider appropriate to achieve a transfer. The Uncertificated Securities Regulations 2001 permit shares to be issued and held in uncertificated form and transferred by means of a computer based system.

The board may decline to register any transfer of any share:

- which is not a fully paid share;

- where the transfer is not lodged at our registered office or such other place as the directors have appointed;
- where the transfer is not accompanied by the share certificate to which it relates, or such other evidence as the board may reasonably require to show the transferor's right to make the transfer, or evidence of the right of someone other than the transferor to make the transfer on the transferor's behalf;
- where the transfer is in respect of more than one class of share; and
- where the number of joint holders to whom the share is to be transferred exceeds four.

If the board declines to register a transfer, it must return to the transferee the instrument of transfer together with notice of the refusal, unless the board suspects that the proposed transfer may be fraudulent.

CREST

To be traded on AIM, securities must be able to be transferred and settled through the CREST system. CREST is a computerized paperless share transfer and settlement system which allows securities to be transferred by electronic means, without the need for a written instrument of transfer. The Articles are consistent with CREST membership and, amongst other things, allow for the holding and transfer of shares in uncertificated form.

Shareholder Meetings

Annual General Meetings

In accordance with the U.K. Companies Act 2006, we are required in each year to hold an annual general meeting in addition to any other general meetings in that year and to specify the meeting as such in the notice convening it. The annual general meeting shall be convened whenever and wherever the board sees fit, subject to the requirements of the U.K. Companies Act 2006, as described in "—Differences in Corporate Law—Annual General Meeting" and "—Differences in Corporate Law—Notice of General Meetings" in this prospectus.

Notice of General Meetings

The arrangements for the calling of general meetings are described in "—Differences in Corporate Law—Notice of General Meetings" in this prospectus.

Quorum of General Meetings

No business, other than the appointment of the chair of the meeting, shall be transacted at any general meeting unless a quorum is present. At least two shareholders present in person or by proxy and entitled to vote shall be a quorum for all purposes.

Class Meetings

The provisions in the Articles relating to general meetings apply to every separate general meeting of the holders of a class of shares.

Directors

Number of Directors

We may not have less than two directors on the Board and not more than nine. We may, by ordinary resolution of the shareholders, vary the minimum and maximum number of directors from time to time.

Appointment of Directors

Subject to the provisions of the Articles, we may, by ordinary resolution of the shareholders or a decision of the directors, elect any person to be a director, either to fill a casual vacancy or as an addition to the existing board, provided the total number of directors does not exceed the maximum

number fixed by or in accordance with the Articles. However, any person that is not a director retiring from the existing board must be recommended by the board or the person must have confirmed in writing to us their willingness to be elected as a director not later than seven days before the general meeting at which the relevant resolution is proposed.

Any director appointed by the board will hold office only until the next following annual general meeting at which they must retire. In addition, all directors must retire at the third annual general meeting following the annual general meeting at which such director was elected or last re-elected. Such directors are eligible for re-election at the annual general meeting at which they retire.

The shareholders may, at the meeting at which a director retires, fill the vacated office by electing a person and in default the retiring director shall, if willing to continue to act, be deemed to have been re-elected, unless at such meeting it is expressly resolved not to fill such vacated office or unless a resolution for the re-election of such director shall have been put to the meeting and lost.

Directors' Interests

If a situation arises in which a director has, or can have, a direct or indirect interest that conflicts, or possibly may conflict, with our interests (other than a situation that cannot reasonably be regarded as likely to give rise to a conflict of interest or a conflict of interest arising in relation to a transaction or arrangement with us), the board may authorize in accordance with the U.K. Companies Act 2006 the director's interest and the continuing performance by the relevant director of his or her duties as a director on such terms as the board may determine.

A director shall not be accountable to us for any benefit which he or she derives from or in connection with a relationship involving a conflict of interest or possible conflict of interest which has been authorized by the directors or by us in a general meeting and any such transaction or arrangement shall not be liable to be avoided on the grounds of any such benefit.

Subject to the requirements under sections 175, 177 and 182 of the U.K. Companies Act 2006, a director shall declare the nature and extent of such conflicts.

A director may participate in the decision-making process and count in the quorum and vote on a proposed decision of the board which is concerned with such director's interests (subject to any restrictions imposed by the other directors when providing such consent) if such director has declared the nature and extent of any interest of his or hers and provided a majority of the other directors consent, or if one of the following situations applies:

- the director's interest arises solely through an interest in shares, debentures or other securities of or otherwise in or through us;
- an ordinary resolution of ours permits the director to count in the quorum and vote on the proposed decision;
- the director's interest cannot reasonably be regarded as likely to give rise to a material conflict of interest;
- the conflict of interest arises from one of the following:
  - a guarantee, security or indemnity given, or to be given, by or to the director in respect of an obligation incurred by or on behalf of us or any of our subsidiaries;
  - a subscription, or agreement to subscribe, for shares or other securities of us or any of our subsidiaries, or to underwrite, sub-underwrite or guarantee an offer of any such shares or securities by us or any of our subsidiaries for subscription, purchase or exchange;
  - arrangements pursuant to which benefits are made available to employees and directors, or former employees and directors, of us or any of our subsidiaries which do not provide special benefits for directors or former directors;

- the purchase or maintenance of insurance which we are empowered to purchase or maintain for directors or officers;
- the giving to the director of an indemnity against liabilities incurred or to be incurred by the director in the execution and discharge of his or her duties;
- the provision of funds to the director to meet expenditure incurred or to be incurred by the director in defending criminal or civil proceedings against him or her or in connection with any application under certain provisions of the U.K. Companies Act 2006 or otherwise enabling him or her to avoid incurring that expenditure; or
- proposals concerning another company in which the director is interested directly or indirectly (whether as officer, shareholder or otherwise), if the director and any other persons connected with him or her do not to his or her knowledge hold an interest in shares representing 1% or more of the issued shares of any class of the equity share capital of that company (or of any third company through which his or their interest is derived) or of the voting rights available to shareholders of the relevant company.

A director shall not be counted in the quorum present at a meeting in relation to a resolution on which he or she is not entitled to vote by reason of his or her interest.

If a question arises at a meeting of the board or of a committee of the board as to the right of a director to vote or be counted in the quorum, and such question is not resolved by his or her voluntarily agreeing to abstain from voting, the question shall be determined by a resolution of the board or such committee (with such director being excluded from voting on the resolution).

Directors' Fees and Remuneration

Each of the directors is entitled to remuneration as determined by the board for their service as directors and other services undertaken for us.

Each director may be paid his or her reasonable expenses in connection with such director's attendance at meetings of the board or committees of the board or general meetings or separate meetings of the holders of any class of shares or of debentures, or otherwise in connection with the exercise of powers and the discharge of responsibilities in relation to us.

Indemnity

Every director, officer or former director or officer of our group may be indemnified against all costs, charges, losses, expenses and liabilities incurred by him or her in connection with any negligence, default, breach of duty, or breach of trust by him or her in relation to us or in connection with our activities as a trustee of an occupational pension scheme, in the actual or purported exercise of his or her powers or duties or otherwise as our officer, to the extent permitted under the U.K. Companies Act 2006.

Novartis Observer

For as long as Novartis holds not less than one percent of our issued share capital, Novartis may appoint one observer who may attend, but not participate or vote in, any meeting of our Board.

Other U.K. Law Considerations

Notification of Voting Rights

A shareholder in a public company incorporated in the United Kingdom whose shares are admitted to trading on AIM is required pursuant to Chapter 5 of the Disclosure Guidance and Transparency Rules of the U.K. Financial Conduct Authority to notify us of the percentage of his or her voting rights if the percentage of voting rights which he or she holds as a shareholder or through his or her direct or indirect holding of financial instruments (or a combination of such holdings) reaches, exceeds, or falls below 3%, 4%, 5%, and each 1% threshold thereafter up to 100% as a result of an acquisition or disposal of shares or financial instruments.

Mandatory Purchases and Acquisitions

Pursuant to Sections 979 to 991 of the U.K. Companies Act 2006, where a takeover offer has been made for us and the offeror has acquired or unconditionally contracted to acquire not less than 90% in value of the shares to which the offer relates and not less than 90% of the voting rights carried by those shares, the offeror may give notice to the holder of any shares to which the offer relates which the offeror has not acquired or unconditionally contracted to acquire that he or she wishes to acquire, and is entitled to so acquire, those shares on the same terms as the general offer. The offeror would do so by sending a notice to the outstanding minority shareholders telling them that it will compulsorily acquire their shares. Such notice must be sent within three months of the last day on which the offer can be accepted in the prescribed manner. The compulsory acquisition of the minority shareholders' shares can be completed at the end of six weeks from the date the notice has been given, subject to the minority shareholders failing to successfully lodge an application to the court to prevent such compulsory acquisition any time prior to the end of those six weeks following which the offeror can execute a transfer of the outstanding shares in its favor and pay the consideration to us, which would hold the consideration on trust for the outstanding minority shareholders. The consideration offered to the outstanding minority shareholders whose shares are compulsorily acquired under the U.K. Companies Act 2006 must, in general, be the same as the consideration that was available under the takeover offer.

Sell Out

The U.K. Companies Act 2006 also gives our minority shareholders a right to be bought out in certain circumstances by an offeror who has made a takeover offer for all of our shares. The holder of shares to which the offer relates, and who has not otherwise accepted the offer, may require the offeror to acquire his or her shares if, prior to the expiry of the acceptance period for such offer, (i) the offeror has acquired or unconditionally agreed to acquire not less than 90% in value of the voting shares, and (ii) not less than 90% of the voting rights carried by those shares. The offeror may impose a time limit on the rights of minority shareholders to be bought out that is not less than three months after the end of the acceptance period. If a shareholder exercises his or her rights to be bought out, the offeror is required to acquire those shares on the terms of this offer or on such other terms as may be agreed.

Disclosure of Interest in Shares

Pursuant to Part 22 of the U.K. Companies Act 2006, we are empowered to give notice in writing to any person whom we know or have reasonable cause to believe to be interested in our shares, or to have been so interested at any time during the three years immediately preceding the date on which the notice is issued requiring such persons, within a reasonable time to disclose to us particulars of that person's interest and (so far as is within his or her knowledge) particulars of any other interest that subsists or subsisted in those shares.

Under our Articles, if a person defaults in supplying us with the required particulars in relation to the shares in question ("default shares"), within the prescribed period, the directors may by notice direct that:

- in respect of the default shares, the relevant shareholder shall not be entitled to vote (either in person or by proxy) at any general meeting or to exercise any other right conferred by a shareholding in relation to general meetings;
- where the default shares represent at least 0.25% of their class, (a) any dividend or other money payable in respect of the default shares shall be retained by us without liability to pay interest and/or (b) no transfers by the relevant shareholder of any default shares may be registered (unless the shareholder himself is not in default and the shareholder provides a certificate, in a form satisfactory to the directors, to the effect that after due and careful enquiry the shareholder is satisfied that none of the shares to be transferred are default shares); and

- any shares held by the relevant shareholder in uncertificated form shall be converted into certificated form and that shareholder shall not after that be entitled to convert all or any shares held by him or her into uncertificated form (except with the authority of the directors) unless the shareholder himself is not in default and the shares which the shareholder wishes to convert are part only of the shareholder's holding and the shareholder provides a certificate, in a form satisfactory to the directors, to the effect that after due and careful enquiry the shareholder is satisfied that none of the shares to be converted into uncertificated form are default shares.

Purchase of Own Shares

Under English law, a limited company may only purchase its own shares out of the distributable profits of the company or the proceeds of a fresh issue of shares made for the purpose of financing the purchase, provided that they are not restricted from doing so by their articles. A limited company may not purchase its own shares if, as a result of the purchase, there would no longer be any issued shares of the company other than redeemable shares or shares held as treasury shares. Shares must be fully paid in order to be repurchased.

Subject to the above, we may purchase our own shares in the manner prescribed below. We may make a market purchase of our own fully paid shares pursuant to an ordinary resolution of shareholders. The resolution authorizing the purchase must:

- specify the maximum number of shares authorized to be acquired;
- determine the maximum and minimum prices that may be paid for the shares; and
- specify a date, not being later than five years after the passing of the resolution, on which the authority to purchase is to expire.

We may purchase our own fully paid shares otherwise than on a recognized investment exchange pursuant to a purchase contract authorized by resolution of shareholders before the purchase takes place. Any authority will not be effective if any shareholder from whom we propose to purchase shares votes on the resolution and the resolution would not have been passed if he or she had not done so. The resolution authorizing the purchase must specify a date, not being later than five years after the passing of the resolution, on which the authority to purchase is to expire.

Distributions and Dividends

Under the U.K. Companies Act 2006, before a company can lawfully make a distribution or dividend, it must ensure that it has sufficient distributable reserves (on a non-consolidated basis). The basic rule is that a company's profits available for the purpose of making a distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. The requirement to have sufficient distributable reserves before a distribution or dividend can be paid applies to us and to each of our subsidiaries that has been incorporated under English law.

It is not sufficient that we, as a public company, have made a distributable profit for the purpose of making a distribution. An additional capital maintenance requirement is imposed on us to ensure that the net worth of the company is at least equal to the amount of its capital. A public company can only make a distribution:

- if, at the time that the distribution is made, the amount of its net assets (that is, the total excess of assets over liabilities) is not less than the total of its called up share capital and undistributable reserves; and
- if, and to the extent that, the distribution itself, at the time that it is made, does not reduce the amount of the net assets to less than that total.

City Code on Takeovers and Mergers

As a public company incorporated in England and Wales with our registered office in England and Wales which has shares admitted to AIM, we are subject to the U.K. City Code on Takeovers and Mergers (the "City Code"), which is issued and administered by the U.K. Panel on Takeovers and Mergers (the "Panel"). The City Code provides a framework within which takeovers of companies subject to it are conducted. In particular, the City Code contains certain rules in respect of mandatory offers. Under Rule 9 of the City Code, if a person:

- acquires an interest in our shares which, when taken together with shares in which he or she or persons acting in concert with him or her are interested, carries 30% or more of the voting rights of our shares; or
- who, together with persons acting in concert with him, is interested in shares that in the aggregate carry not less than 30% and not more than 50% of the voting rights of our shares, and such persons, or any person acting in concert with him, acquires additional interests in shares that increase the percentage of shares carrying voting rights in which that person is interested,

the acquirer and depending on the circumstances, its concert parties, would be required (except with the consent of the Panel) to make a cash offer for our outstanding shares at a price not less than the highest price paid for any interests in the shares by the acquirer or its concert parties during the previous 12 months.

Exchange Controls

There are no governmental laws, decrees, regulations or other legislation in the United Kingdom that may affect the import or export of capital, including the availability of cash and cash equivalents for use by us, or that may affect the remittance of dividends, interest, or other payments by us to non-resident holders of our ordinary shares or ADSs, other than withholding tax requirements. There is no limitation imposed by English law or in the Articles on the right of non-residents to hold or vote shares.

Differences in Corporate Law

The applicable provisions of the U.K. Companies Act 2006 differ from laws applicable to U.S. corporations and their shareholders. Set forth below is a summary of certain differences between the provisions of the U.K. Companies Act 2006 applicable to us and the General Corporation Law of the State of Delaware relating to shareholders' rights and protections. This summary is not intended to be a complete discussion of the respective rights and it is qualified in its entirety by reference to Delaware law and English law.

	England and Wales	Delaware
Number of Directors	Under the U.K. Companies Act 2006, a public limited company must have at least two directors. Our Articles further provide that, unless otherwise determined by an ordinary resolution, the number of our directors shall be not less than two nor more than nine in number. Our board of directors currently consists of nine members. For as long as Novartis holds not less than one percent of our issued share capital, Novartis may appoint one observer who may attend, but not	Under Delaware law, a corporation must have at least one director and the number of directors shall be fixed by or in the manner provided in the bylaws.

	England and Wales	Delaware
	participate or vote in, any meeting of our board of directors.	
Removal of Directors	Under the U.K. Companies Act 2006, a company may remove a director without cause at a general meeting by way of an ordinary resolution of shareholders (which is passed by a simple majority of those voting in person or by proxy at a general meeting), irrespective of any provision of any agreement or service contract between the director and the company, provided that 28 clear days' notice of the proposed resolution to remove the director is given and certain other procedural requirements under the U.K. Companies Act 2006 are followed (such as allowing the director to make representations against his or her removal either at the meeting or in writing). In addition to any power of removal under the U.K. Companies Act 2006, under our Articles, we may, by special resolution or ordinary resolution (of which special notice has been given in accordance with section 312 of the U.K. Companies Act 2006) remove any director from office (but without prejudice to any claim he or she may have for damages for breach of any agreement between us and the relevant director) and, by ordinary resolution, appoint another person to act as director in his or her place.	Under Delaware law, unless otherwise provided in the certificate of incorporation, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except (a) unless the certificate of incorporation provides otherwise, in the case of a corporation whose board of directors is classified, shareholders may effect such removal only for cause, or (b) in the case of a corporation having cumulative voting, if less than the entire board of directors is to be removed, no director may be removed without cause if the votes cast against his or her removal would be sufficient to elect him or her if then cumulatively voted at an election of the entire board of directors, or, if there are classes of directors, at an election of the class of directors of which he or she is a part.
Vacancies on the Board of Directors	Under our Articles, we may by ordinary resolution appoint a person who is willing to act to be a director, either to fill a vacancy or as an additional director and our board of directors may appoint a person who is willing to act to be a director, either to fill a vacancy or as an additional director, provided in each case that the appointment does not cause the number of directors to exceed the number fixed by or in accordance with our Articles as the maximum number of directors.	Under Delaware law, vacancies and newly created directorships may be filled by a majority of the directors then in office (even though less than a quorum) or by a sole remaining director unless (a) otherwise provided in the certificate of incorporation or by-laws of the corporation or (b) the certificate of incorporation directs that a particular class of stock is to elect such director, in which case a majority of the other directors elected by such class, or a

	England and Wales	Delaware
		sole remaining director elected by such class, will fill such vacancy.
Annual General Meeting	Under the U.K. Companies Act 2006, a public limited company must hold an annual general meeting in each six-month period following the company's annual accounting reference date.	Under Delaware law, the annual meeting of stockholders shall be held at such place, on such date and at such time as may be designated from time to time by the board of directors or as provided in the certificate of incorporation or by the bylaws.
General Meeting	Under the U.K. Companies Act 2006, a general meeting of the shareholders of a public limited company may be called by the directors. Subject to the notice requirements of the U.K. Companies Act 2006 outlined below and subject to our Articles, a general meeting of our shareholders may be called by our board of directors whenever and at such times and places as it shall determine. A general meeting may also be convened by our board of directors on the requisition of not less than two of our shareholders who hold at least 5% of our voting share capital. General meetings at which special resolutions are proposed and passed generally involve proposals to change the name of the company, permit the company to issue new shares for cash without the shareholders' pre-emptive right, amend the company's articles of association, or carry out other matters where either the company's articles of association or the U.K. Companies Act 2006 prescribe that a special resolution is required. Other proposals relating to the ordinary course of the company's business, such as the election of directors, would generally be the subject of an ordinary resolution and subject to our Articles.	Under Delaware law, special meetings of the stockholders may be called by the board of directors or by such person or persons as may be authorized by the certificate of incorporation or by the bylaws.
Notice of General Meetings	Under the U.K. Companies Act 2006, at least 21 clear days' notice must be given for an annual general meeting and any resolutions to be proposed at that	Under Delaware law, unless otherwise provided in the certificate of incorporation or bylaws, written notice of any meeting of the stockholders must

	England and Wales	Delaware
	meeting. At least 14 clear days' notice is required for any other general meeting. In addition, certain matters, such as the removal of directors or auditors, require special notice, which is 28 clear days' notice.	be given to each stockholder entitled to vote at the meeting not less than ten nor more than 60 days before the date of the meeting and shall specify the place, date, hour, and purpose or purposes of the meeting.
Quorum	Our Articles provide that no business shall be transacted at any general meeting unless a quorum is present. Two qualifying persons present at a meeting and entitled to vote on the business to be transacted shall be a quorum, unless (1) each is a qualifying person only because he or she is authorized under the U.K. Companies Act 2006 to act as a representative of a corporation in relation to the meeting, and they are representatives of the same corporation, or (2) each is a qualifying person only because he or she is appointed as proxy of a shareholder in relation to the meeting, and they are proxies of the same shareholder. A "qualifying person" means (1) a person who is one of our shareholders, (2) a person authorized under the U.K. Companies Act 2006 to act as a representative of the corporation in relation to the meeting, or (3) a person appointed as proxy of a shareholder in relation to the meeting.	The certificate of incorporation or bylaws may specify the number of shares, the holders of which shall be present or represented by proxy at any meeting in order to constitute a quorum, but in no event shall a quorum consist of less than one third of the shares entitled to vote at the meeting. In the absence of such specification in the certificate of incorporation or bylaws, a majority of the shares entitled to vote, present in person or represented by proxy, shall constitute a quorum at a meeting of stockholders.
Proxy	Under the U.K. Companies Act 2006, at any meeting of shareholders, a shareholder may designate another person to attend, speak and vote at the meeting on their behalf by proxy.	Under Delaware law, at any meeting of stockholders, a stockholder may designate another person to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A director of a Delaware corporation may not issue a proxy representing the director's voting rights as a director.
Issue of New Shares	Under the U.K. Companies Act 2006, the directors of a company must not exercise any power to allot shares or grant rights to subscribe for, or to convert any security	Under Delaware law, if the company's certificate of incorporation so provides, the directors have the power to authorize additional stock. The directors

	England and Wales	Delaware
	into, shares unless they are authorized to do so by the company's articles of association or by an ordinary resolution of the shareholders. Any authorization given must state the maximum amount of shares that may be allotted under it and specify the date on which it will expire, which must be not more than five years from the date the authorization was given. The authority can be renewed by a further resolution of the shareholders.	may authorize capital stock to be issued for consideration consisting of cash, any tangible or intangible property or any benefit to the company or any combination thereof.
Pre-emptive Rights	Under the U.K. Companies Act 2006, "equity securities," being (i) shares in the company other than shares that, with respect to dividends and capital, carry a right to participate only up to a specified amount in a distribution ("ordinary shares") or (ii) rights to subscribe for, or to convert securities into, ordinary shares, proposed to be allotted for cash, must be offered first to the existing equity shareholders in the company in proportion to the respective nominal value of their holdings, unless an exception applies or a special resolution to the contrary has been passed by shareholders in a general meeting or the articles of association provide otherwise, in each case in accordance with the provisions of the U.K. Companies Act 2006.	Under Delaware law, shareholders have no pre-emptive rights to subscribe to additional issues of stock or to any security convertible into such stock unless, and except to the extent that, such rights are expressly provided for in the certificate of incorporation.
Authority to Allot	Under the U.K. Companies Act 2006, the directors of a company must not allot shares or grant rights to subscribe for or to convert any security into shares unless those shares are alloted, or those rights to subscribe or convert any security into shares are granted (as applicable) pursuant to an employee share scheme, an ordinary resolution to the contrary has been passed by shareholders in a general meeting, or the articles of association provide otherwise, in each case, in accordance with the provisions of the U.K. Companies Act 2006.	Under Delaware law, if the corporation's charter or certificate of incorporation so provides, the board of directors has the power to authorize the issuance of stock. The board of directors may authorize capital stock to be issued for consideration consisting of cash, any tangible or intangible property or any benefit to the corporation or any combination thereof. It may determine the amount of such consideration by approving a formula. In the absence of actual fraud in the transaction, the judgment of the directors as to the value of such consideration is conclusive.
Liability of Directors and Officers	Under the U.K. Companies Act 2006, any provision (whether contained in a company's articles of association or any contract or otherwise) that purports to exempt a director of a company (to any	Under Delaware law, a corporation's certificate of incorporation may include a provision eliminating or limiting the personal liability of a director to the corporation and its stockholders for

England and Wales	Delaware
extent) from any liability that would otherwise attach to him in connection with any negligence, default, breach of duty or breach of trust in relation to the company is void. Any provision by which we directly or indirectly provide an indemnity (to any extent) for a director of the company or of an "associated company" (i.e., a company that is a parent, subsidiary or sister company of us) against any liability attaching to him or her in connection with any negligence, default, breach of duty or breach of trust in relation to the company of which he or she is a director is void except as permitted by the U.K. Companies Act 2006, which provides exceptions for us to: ▪ purchase and maintain director and officer insurance insuring our directors or the directors of an associated company against any liability attaching in connection with any negligence, default, breach of duty or breach of trust in relation to the company of which he or she is a director; ▪ provide a "qualifying third party indemnity," which is an indemnity against liability incurred by our directors and directors of an associated company to a person other than us or an associated company. Such indemnity must not cover criminal fines, penalties imposed by regulatory bodies, the defense costs of criminal proceedings where the director is found guilty, the defense costs of civil proceedings successfully brought against the director by the company or an associated company, or the costs of unsuccessful applications by the director for relief from liabilities for such matters; and ▪ provide a "qualifying pension scheme indemnity," which is an indemnity against liability incurred in connection	damages arising from a breach of fiduciary duty as a director. However, no provision can limit the liability of a director for: ▪ any breach of the director's duty of loyalty to the corporation or its stockholders; ▪ acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law; ▪ intentional or negligent payment of unlawful dividends or stock purchases or redemptions; or ▪ any transaction from which the director derives an improper personal benefit.

England and Wales	Delaware
with the company's activities as trustee of an occupational pension plan. Such indemnity must not cover a fine imposed in criminal proceedings, or sum payable to a regulatory authority by way of a penalty in respect of non-compliance with any requirement of a regulatory nature (however arising), or any liability incurred by the director in defending criminal proceedings in which he or she is convicted.	
Our Articles provide that it may indemnify each of our directors against: ▪ any liability incurred by that director in connection with any negligence, default, breach of duty or breach of trust in relation to us or an associated company; ▪ any liability incurred by that director in connection with the activities of us or an associated company in the capacity of trustee of an occupational pension scheme; and ▪ any other liability incurred by that director in the actual or purported execution or discharge of his or her duties, the exercise or purported exercise of his or her powers or otherwise in relation to his or her duties or powers as an officer of the Company or an associated company.	
The U.K. Companies Act 2006 also provides that we may lend each of our directors funds to meet expenditure incurred by him or her in defending any criminal or civil proceedings in connection with any alleged negligence, default, breach of duty or breach of trust by him or her in relation to us or an associated company, or in connection with an application for certain specified relief, subject to the requirement that the loan must be on terms that it is to be repaid if the defense or the application for relief is unsuccessful.	

	England and Wales	Delaware
Voting Rights	For a description of the voting rights contained in our Articles see “Description of the Share Capital and Articles of Association—Articles of Association—Shares and Rights Attaching to Them—Voting Rights” in this prospectus.	Delaware law provides that, unless otherwise provided in the certificate of incorporation, each stockholder is entitled to one vote for each share of capital stock held by such stockholder.
Shareholder Vote on Certain Transactions	The U.K. Companies Act 2006 provides for schemes of arrangement, which are arrangements or compromises between a company and any class of shareholders or creditors and used in certain types of reconstructions, amalgamations, capital reorganizations or takeovers. These arrangements require: (1) the approval, at a shareholders’ or creditors’ meeting convened by order of a court of England and Wales, of a majority in number representing not less than 75% in value of the creditors or class of creditors or members or class of members (as the case may be) present and voting, either in person or by proxy; and (2) the approval of a court of England and Wales.	Generally, under Delaware law, unless the certificate of incorporation provides for the vote of a larger portion of the stock, closing of a merger, consolidation, sale, lease or exchange of all or substantially all of a corporation’s assets or dissolution requires: ▪ the approval of the board of directors; and ▪ the approval by the vote of the holders of a majority of the outstanding stock or, if the certificate of incorporation provides for more or less than one vote per share, a majority of the votes of the outstanding stock of a corporation entitled to vote on the matter.
Standard of Conduct for Directors	Under English law, a director owes various statutory and fiduciary duties to the company, including: ▪ to act in the way he or she considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole; ▪ to avoid a situation in which he or she has, or can have, a direct or indirect interest that conflicts, or possibly conflicts, with the interests of the company; ▪ to act in accordance with the company’s constitution and only exercise his or her powers for the purposes for which they are conferred; ▪ to exercise independent judgment; ▪ to exercise reasonable care, skill, and diligence; ▪ not to accept benefits from a third party conferred by reason of his or	Delaware law does not contain specific provisions setting forth the standard of conduct of a director. The scope of the fiduciary duties of directors is generally determined by the courts of the State of Delaware. In general, directors have a duty to act without self-interest, on a well-informed basis and in a manner they reasonably believe to be in the best interest of the stockholders. Directors of a Delaware corporation owe fiduciary duties of care and loyalty to the corporation and to its shareholders. The duty of care generally requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director act in a manner he or she reasonably believes to be in the best interests of the

	England and Wales	Delaware
	her being a director or doing, or not doing, anything as a director; and ▪ a duty to declare any interest that he or she has, whether directly or indirectly, in a proposed or existing transaction or arrangement with the company.	corporation. He or she must not use his or her corporate position for personal gain or advantage. In general, but subject to certain exceptions, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Delaware courts have also imposed a heightened standard of conduct upon directors of a Delaware corporation who take any action designed to defeat a threatened change in control of the corporation. In addition, under Delaware law, when the board of directors of a Delaware corporation approves the sale or break-up of a corporation, the board of directors may, in certain circumstances, have a duty to obtain the highest value reasonably available to the shareholders.
Shareholder Suits	Under English law, generally, the company, rather than its shareholders, is the proper claimant in an action in respect of a wrong done to the company or where there is an irregularity in the company's internal management. Notwithstanding this general position, the U.K. Companies Act 2006 provides that (1) a court may allow a shareholder to bring a derivative claim (that is, an action in respect of and on behalf of the company) in respect of a cause of action arising from a director's negligence, default, breach of duty or breach of trust and (2) a shareholder may bring a claim for a court order on the ground that the company's affairs have been or are being conducted in a manner that is unfairly prejudicial to the interests of its shareholders generally or of some of its shareholders, or that an actual or proposed act or omission of the company is or would be so prejudicial. The U.K. Limitation Act 1980 imposes a limitation period, with certain exceptions,	Under Delaware law, a stockholder may initiate a derivative action to enforce a right of a corporation if the corporation fails to enforce the right itself. The complaint must: ▪ state that the plaintiff was a stockholder at the time of the transaction of which the plaintiff complains or that the plaintiffs shares thereafter devolved on the plaintiff by operation of law; and ▪ allege with particularity the efforts made by the plaintiff to obtain the action the plaintiff desires from the directors and the reasons for the plaintiff's failure to obtain the action; or ▪ state the reasons for not making the effort. Additionally, the plaintiff must remain a stockholder through the duration of the derivative suit. The action will not be dismissed or compromised without the

England and Wales	Delaware
in respect of civil claims. The period is six years in respect of actions in contract and tort, and 12 years for “actions on a specialty,” such as a breach of any obligation contained in a deed. The limitation period begins to run from the date on which the action accrued. In the case of contract, this is the date on which the breach of contract occurred, and in tort this is the date on which the damage is suffered.	approval of the Delaware Court of Chancery.

DESCRIPTION OF AMERICAN DEPOSITARY SHARES

American Depositary Shares

Citibank, N.A. ("Citibank") has agreed to act as the depositary for the ADSs. Citibank's depositary offices are located at 388 Greenwich Street, New York, New York 10013. ADSs represent ownership interests in securities that are on deposit with the depositary. ADSs may be represented by certificates that are commonly known as American Depositary Receipts ("ADRs"). The depositary typically appoints a custodian to safekeep the securities on deposit. In this case, the custodian is Citibank, N.A., London Branch, located at 25 Canada Square, Canary Wharf, London, E14 5LB, United Kingdom.

We have appointed Citibank as depositary pursuant to a deposit agreement. A copy of the form of the deposit agreement is on file with the SEC under cover of a registration statement on Form F-6. You may obtain a copy of the deposit agreement from the SEC's website (www.sec.gov). Please refer to registration number 333-223890 when retrieving such copy.

We are providing you with a summary description of the material terms of the ADSs and of your material rights as an owner of ADSs. Please remember that summaries by their nature lack the precision of the information summarized and that the rights and obligations of an owner of ADSs will be determined by reference to the terms of the deposit agreement and not by this summary. We urge you to review the deposit agreement in its entirety.

Each ADS represents the right to receive, and to exercise the beneficial ownership interests in, five ordinary shares that are on deposit with the depositary and/or custodian. An ADS also represents the right to receive, and to exercise the beneficial interests in, any other property received by the depositary or the custodian on behalf of the owner of the ADS but that has not been distributed to the owners of ADSs because of legal restrictions or practical considerations. We and the depositary may agree to change the ADS-to-Share ratio by amending the deposit agreement. This amendment may give rise to, or change, the depositary fees payable by ADS owners. The custodian, the depositary and their respective nominees will hold all deposited property for the benefit of the holders and beneficial owners of ADSs. The deposited property does not constitute the proprietary assets of the depositary, the custodian or their nominees. Beneficial ownership in the deposited property will under the terms of the deposit agreement be vested in the beneficial owners of the ADSs. The depositary, the custodian and their respective nominees will be the record holders of the deposited property represented by the ADSs for the benefit of the holders and beneficial owners of the corresponding ADSs. A beneficial owner of ADSs may or may not be the holder of ADSs. Beneficial owners of ADSs will be able to receive, and to exercise beneficial ownership interests in, the deposited property only through the registered holders of the ADSs, the registered holders of the ADSs (on behalf of the applicable ADS owners) only through the depositary, and the depositary (on behalf of the owners of the corresponding ADSs) directly, or indirectly, through the custodian or their respective nominees, in each case upon the terms of the deposit agreement.

If you become an owner of ADSs, you will become a party to the deposit agreement and therefore will be bound to its terms and to the terms of any ADR that represents your ADSs. The deposit agreement and the ADR specify our rights and obligations as well as your rights and obligations as owner of ADSs and those of the depositary. As an ADS holder you appoint the depositary to act on your behalf in certain circumstances. The deposit agreement and the ADRs are governed by New York law. However, our obligations to the holders of ordinary shares will continue to be governed by the laws of England and Wales, which may be different from the laws in the United States.

In addition, applicable laws and regulations may require you to satisfy reporting requirements and obtain regulatory approvals in certain circumstances. You are solely responsible for complying with

such reporting requirements and obtaining such approvals. Neither the depositary, the custodian, us or any of their or our respective agents or affiliates shall be required to take any actions whatsoever on your behalf to satisfy such reporting requirements or obtain such regulatory approvals under applicable laws and regulations.

The manner in which you own the ADSs (e.g., in a brokerage account vs. as registered holder, or as holder of certificated vs. uncertificated ADSs) may affect your rights and obligations, and the manner in which, and extent to which, the depositary's services are made available to you. As an owner of ADSs, we will not treat you as one of our shareholders and you will not have direct shareholder rights. The depositary will hold on your behalf the shareholder rights attached to the ordinary shares underlying your ADSs. As an owner of ADSs you will be able to exercise the shareholders rights for the ordinary shares represented by your ADSs through the depositary only to the extent contemplated in the deposit agreement. To exercise any shareholder rights not contemplated in the deposit agreement you will, as an ADS owner, need to arrange for the cancellation of your ADSs and become a direct shareholder.

As an owner of ADSs, you may hold your ADSs either by means of an ADR registered in your name, through a brokerage or safekeeping account, or through an account established by the depositary in your name reflecting the registration of uncertificated ADSs directly on the books of the depositary (commonly referred to as the direct registration system or DRS). The direct registration system reflects the uncertificated (book-entry) registration of ownership of ADSs by the depositary. Under the direct registration system, ownership of ADSs is evidenced by periodic statements issued by the depositary to the holders of the ADSs. The direct registration system includes automated transfers between the depositary and DTC, the central book-entry clearing and settlement system for equity securities in the United States. If you decide to hold your ADSs through your brokerage or safekeeping account, you must rely on the procedures of your broker or bank to assert your rights as ADS owner. Banks and brokers typically hold securities such as the ADSs through clearing and settlement systems such as DTC. The procedures of such clearing and settlement systems may limit your ability to exercise your rights as an owner of ADSs. Please consult with your broker or bank if you have any questions concerning these limitations and procedures. All ADSs held through DTC will be registered in the name of a nominee of DTC. This summary description assumes you have opted to own the ADSs directly by means of an ADS registered in your name and, as such, we will refer to you as the "holder." When we refer to "you," we assume the reader owns ADSs and will own ADSs at the relevant time.

The registration of the ordinary shares in the name of the depositary or the custodian shall, to the maximum extent permitted by applicable law, vest in the depositary or the custodian the record ownership in the applicable ordinary shares with the beneficial ownership rights and interests in such ordinary shares being at all times vested with the beneficial owners of the ADSs representing the ordinary shares. The depositary or the custodian shall at all times be entitled to exercise the beneficial ownership rights in all deposited property, in each case only on behalf of the holders and beneficial owners of the ADSs representing the deposited property.

Dividends and Other Distributions

As a holder of ADSs, you generally have the right to receive the distributions we make on the securities deposited with the custodian. Your receipt of these distributions may be limited, however, by practical considerations and legal limitations. Holders of ADSs will receive such distributions under the terms of the deposit agreement in proportion to the number of ADSs held as of the specified record date, after deduction the applicable fees, taxes, and expenses.

Distributions of Cash

Whenever we make a cash distribution for the securities on deposit with the custodian, we will deposit the funds with the custodian. Upon receipt of confirmation of the deposit of the requisite funds,

the depositary will arrange for the funds received in a currency other than U.S. dollars to be converted into U.S. dollars and for the distribution of the U.S. dollars to the holders, subject to the laws and regulations of England and Wales.

The conversion into U.S. dollars will take place only if practicable and if the U.S. dollars are transferable to the United States. The depositary will apply the same method for distributing the proceeds of the sale of any property (such as undistributed rights) held by the custodian in respect of securities on deposit.

The distribution of cash will be made net of the fees, expenses, taxes, and governmental charges payable by holders under the terms of the deposit agreement. The depositary will hold any cash amounts it is unable to distribute in a non-interest bearing account for the benefit of the applicable holders and beneficial owners of ADSs until the distribution can be effected or the funds that the depositary holds must be escheated as unclaimed property in accordance with the laws of the relevant states of the United States.

Distributions of Shares

Whenever we make a free distribution of ordinary shares for the securities on deposit with the custodian, we will deposit the applicable number of ordinary shares with the custodian. Upon receipt of confirmation of such deposit, the depositary will either distribute to holders new ADSs representing the ordinary shares deposited or modify the ADS-to-ordinary shares ratio, in which case each ADS you hold will represent rights and interests in the additional ordinary shares so deposited. Only whole new ADSs will be distributed. Fractional entitlements will be sold and the proceeds of such sale will be distributed as in the case of a cash distribution.

The distribution of new ADSs or the modification of the ADS-to-ordinary shares ratio upon a distribution of ordinary shares will be made net of the fees, expenses, taxes, and governmental charges payable by holders under the terms of the deposit agreement. In order to pay such taxes or governmental charges, the depositary may sell all or a portion of the new ordinary shares so distributed.

No such distribution of new ADSs will be made if it would violate a law (*e.g.*, the U.S. securities laws) or if it is not operationally practicable. If the depositary does not distribute new ADSs as described above, it may sell the ordinary shares received upon the terms described in the deposit agreement and will distribute the proceeds of the sale as in the case of a distribution of cash.

Distributions of Rights

Whenever we intend to distribute rights to subscribe for additional ordinary shares, we will give prior notice to the depositary and we will assist the depositary in determining whether it is lawful and reasonably practicable to distribute rights to purchase additional ADSs to holders.

The depositary will establish procedures to distribute rights to purchase additional ADSs to holders and to enable such holders to exercise such rights if it is lawful and reasonably practicable to make the rights available to holders of ADSs, and if we provide all of the documentation contemplated in the deposit agreement (such as opinions to address the lawfulness of the transaction). You may have to pay fees, expenses, taxes and other governmental charges to subscribe for the new ADSs upon the exercise of your rights. The depositary is not obligated to establish procedures to facilitate the distribution and exercise by holders of rights to subscribe for new ordinary shares other than in the form of ADSs.

The depositary will *not* distribute the rights to you if:

- we do not timely request that the rights be distributed to you or we request that the rights not be distributed to you; or
- we fail to deliver satisfactory documents to the depositary; or
- it is not reasonably practicable to distribute the rights.

The depositary will sell the rights that are not exercised or not distributed if such sale is lawful and reasonably practicable. The proceeds of such sale will be distributed to holders as in the case of a cash distribution. If the depositary is unable to sell the rights, it will allow the rights to lapse.

Elective Distributions

Whenever we intend to distribute a dividend payable at the election of shareholders either in cash or in additional shares, we will give prior notice thereof to the depositary and will indicate whether we wish the elective distribution to be made available to you. In such case, we will assist the depositary in determining whether such distribution is lawful and reasonably practicable.

The depositary will make the election available to you only if it is reasonably practicable and if we have provided all of the documentation contemplated in the deposit agreement. In such case, the depositary will establish procedures to enable you to elect to receive either cash or additional ADSs, in each case as described in the deposit agreement.

If the election is not made available to you, you will receive either cash or additional ADSs, depending on what a shareholder in England and Wales would receive upon failing to make an election, as more fully described in the deposit agreement.

Other Distributions

Whenever we intend to distribute property other than cash, ordinary shares, or rights to purchase additional ordinary shares, we will notify the depositary in advance and will indicate whether we wish such distribution to be made to you. If so, we will assist the depositary in determining whether such distribution to holders is lawful and reasonably practicable.

If it is reasonably practicable to distribute such property to you and if we provide to the depositary all of the documentation contemplated in the deposit agreement, the depositary will distribute the property to the holders in a manner it deems practicable.

The distribution will be made net of fees, expenses, taxes, and governmental charges payable by holders under the terms of the deposit agreement. In order to pay such taxes and governmental charges, the depositary may sell all or a portion of the property received.

The depositary will *not* distribute the property to you and will sell the property if:

- we do not request that the property be distributed to you or if we request that the property not be distributed to you; or
- we do not deliver satisfactory documents to the depositary; or
- the depositary determines that all or a portion of the distribution to you is not reasonably practicable.
- The proceeds of such a sale will be distributed to holders as in the case of a cash distribution.

Redemption

Whenever we decide to redeem any of the securities on deposit with the custodian, we will notify the depositary in advance. If it is practicable and if we provide all of the documentation contemplated in the deposit agreement, the depositary will provide notice of the redemption to the holders.

The custodian will be instructed to surrender the shares being redeemed against payment of the applicable redemption price. The depositary will convert into U.S. dollars upon the terms of the deposit agreement the redemption funds received in a currency other than U.S. dollars and will establish procedures to enable holders to receive the net proceeds from the redemption upon surrender of their ADSs to the depositary. You may have to pay fees, expenses, taxes, and other governmental charges upon the redemption of your ADSs. If less than all ADSs are being redeemed, the ADSs to be retired will be selected by lot or on a *pro rata* basis, as the depositary may determine.

Changes Affecting Ordinary Shares

The ordinary shares held on deposit for your ADSs may change from time to time. For example, there may be a change in nominal (or par) value, split-up, cancellation, consolidation, or any other reclassification of such ordinary shares or a recapitalization, reorganization, merger, consolidation, or sale of assets of ours.

If any such change were to occur, your ADSs would, to the extent permitted by law and the deposit agreement, represent the right to receive the property received or exchanged in respect of the ordinary shares held on deposit. The depositary may in such circumstances deliver new ADSs to you, amend the deposit agreement, the ADRs and the applicable registration statement(s) on Form F-6, call for the exchange of your existing ADSs for new ADSs and take any other actions that are appropriate to reflect as to the ADSs the change affecting the Shares. If the depositary may not lawfully distribute such property to you, the depositary may sell such property and distribute the net proceeds to you as in the case of a cash distribution.

Issuance of ADSs upon Deposit of Ordinary Shares

The depositary may create ADSs on your behalf if you or your broker deposit ordinary shares with the custodian. The depositary will deliver these ADSs to the person you indicate only after you pay any applicable issuance fees and any charges and taxes payable for the transfer of the ordinary shares to the custodian. Your ability to deposit ordinary shares and receive ADSs may be limited by the legal considerations in the United States and England and Wales applicable at the time of deposit.

The issuance of ADSs may be delayed until the depositary or the custodian receives confirmation that all required approvals have been given and that the ordinary shares have been duly transferred to the custodian. The depositary will only issue ADSs in whole numbers.

When you make a deposit of ordinary shares, you will be responsible for transferring good and valid title to the depositary. As such, you will be deemed to represent and warrant that:

- the ordinary shares are duly authorized, validly allotted and issued, fully paid, not subject to any call for the payment of further capital, and legally obtained;
- all pre-emptive (and similar) rights, if any, with respect to such ordinary shares have been validly waived, disapplied or exercised;
- you are duly authorized to deposit the ordinary shares;
- the ordinary shares presented for deposit are free and clear of any lien, encumbrance, security interest, charge, mortgage, or adverse claim, and are not, and the ADSs issuable upon such deposit will not be, “Restricted Securities” (as defined in the deposit agreement); and
- the ordinary shares presented for deposit have not been stripped of any rights or entitlements.

If any of the representations or warranties is incorrect in any way, we and the depositary may, at your cost and expense, take any and all actions necessary to correct the consequences of the misrepresentation.

Transfer, Combination and Split Up of ADRs

As an ADR holder, you will be entitled to transfer, combine, or split up your ADRs and the ADSs evidenced thereby. For transfers of ADRs, you will have to surrender the ADRs to be transferred to the depositary and also must:

- ensure that the surrendered ADR is properly endorsed or otherwise in proper form for transfer;
- provide such proof of identity and genuineness of signatures as the depositary deems appropriate;
- provide any transfer stamps required by the State of New York or the United States; and
- pay all applicable fees, charges, expenses, taxes, and other government charges payable by ADR holders pursuant to the terms of the deposit agreement, upon the transfer of ADRs.

To have your ADRs either combined or split up, you must surrender the ADRs in question to the depositary with your request to have them combined or split up, and you must pay all applicable fees, charges, and expenses payable by ADR holders, pursuant to the terms of the deposit agreement, upon a combination or split up of ADRs.

Withdrawal of Ordinary Shares Upon Cancellation of ADSs

As a holder, you will be entitled to present your ADSs to the depositary for cancellation and then receive the corresponding number of underlying ordinary shares at the custodian's offices. Your ability to withdraw the ordinary shares held in respect of the ADSs may be limited by the legal considerations in the United States and England and Wales applicable at the time of withdrawal. In order to withdraw the ordinary shares represented by your ADSs, you will be required to pay to the depositary the fees for cancellation of ADSs and any charges and taxes payable upon the transfer of the ordinary shares.

You assume the risk for delivery of all funds and securities upon withdrawal. Once canceled, the ADSs will not have any rights under the deposit agreement.

If you hold ADSs registered in your name, the depositary may ask you to provide proof of identity and genuineness of any signature and such other documents as the depositary may deem appropriate before it will cancel your ADSs. The withdrawal of the ordinary shares represented by your ADSs may be delayed until the depositary receives satisfactory evidence of compliance with all applicable laws and regulations. Please keep in mind that the depositary will only accept ADSs for cancellation that represent a whole number of securities on deposit.

You will have the right to withdraw the securities represented by your ADSs at any time except for:

- temporary delays that may arise because (i) the transfer books for the ordinary shares or ADSs are closed, or (ii) ordinary shares are immobilized on account of a shareholders' meeting or a payment of dividends;
- obligations to pay fees, taxes, and similar charges; and/or
- restrictions imposed because of laws or regulations applicable to ADSs or the withdrawal of securities on deposit.

The deposit agreement may not be modified to impair your right to withdraw the securities represented by your ADSs except to comply with mandatory provisions of law.

Voting Rights

As a holder, you generally have the right under the deposit agreement to instruct the depositary to exercise the voting rights for the ordinary shares represented by your ADSs. The voting rights of holders of ordinary shares are described in “Description of Share Capital and Articles of Association—Articles of Association” in this prospectus.

At our request, the depositary will distribute to you any notice of shareholders’ meeting received from us together with information explaining how to instruct the depositary to exercise the voting rights of the securities represented by ADSs.

If the depositary timely receives voting instructions from a holder of ADSs, it will endeavor to vote the securities (in person or by proxy) represented by the holder’s ADSs as follows:

- *In the event of voting by show of hands*, the depositary will vote (or cause the custodian to vote) all ordinary held on deposit at that time in accordance with the voting instructions received from a majority of holders of ADSs who provide timely voting instructions.
- *In the event of voting by poll*, the depositary will vote (or cause the custodian to vote) the ordinary shares held on deposit in accordance with the voting instructions received from the holders of ADSs. The depositary will give a discretionary proxy to a person designated by us to vote any ordinary shares held on deposit for which voting instructions were not received from the holders of ADSs, unless we inform the depositary that (a) we do not wish such proxy to be given, (b) substantial opposition exists, or (c) the rights of holders of ADSs may be adversely affected.

Securities for which no voting instructions have been received will not be voted (except as otherwise contemplated in the Deposit Agreement). Please note that the ability of the depositary to carry out voting instructions may be limited by practical and legal limitations and the terms of the securities on deposit. We cannot assure you that you will receive voting materials in time to enable you to return voting instructions to the depositary in a timely manner.

Fees and Charges

As an ADS holder, you will be required to pay the following fees under the terms of the deposit agreement:

Service	Fee
Issuance of ADSs (e.g., an issuance of ADS upon a deposit of ordinary shares or upon a change in the ADS(s)-to-ordinary shares ratio), excluding ADS issuances as a result of distributions of ordinary Shares	Up to $5.00 per 100 ADSs (or fraction thereof) issued
Cancellation of ADSs (e.g., a cancellation of ADSs for delivery of deposited property or upon a change in the ADS(s)-to-ordinary shares ratio)	Up to $5.00 per 100 ADSs (or fraction thereof) cancelled
Distribution of cash dividends or other cash distributions (e.g., upon a sale of rights and other entitlements)	Up to $5.00 per 100 ADSs (or fraction thereof) held
Distribution of ADSs pursuant to (i) stock dividends or other free stock distributions, or (ii) exercise of rights to purchase additional ADSs	Up to $5.00 per 100 ADSs (or fraction thereof) held
Distribution of securities other than ADSs or rights to purchase additional ADSs (e.g., upon a spin-off)	Up to $5.00 per 100 ADSs (or fraction thereof) held
ADS Services	Up to $5.00 per 100 ADSs (or fraction thereof) held on the applicable record date(s) established by the depositary
Registration of ADS Transfers (e.g., upon a registration of the transfer of registered ownership of ADSs, upon a transfer of ADSs into DTC and vice versa, or for any other reason)	Up to $5.00 per 100 ADSs (or fraction thereof) transferred
Conversion of ADSs of one series for ADSs of another series (e.g., upon conversion of Partial Entitlement ADSs for Full Entitlement ADSs, or upon conversion of Restricted ADSs (each as defined in the Deposit Agreement) into freely transferable ADSs, and vice versa)	Up to $5.00 per 100 ADSs (or fraction thereof) converted

As an ADS holder you will also be responsible to pay certain charges such as:

- taxes (including applicable interest and penalties) and other governmental charges;
- the registration fees as may from time to time be in effect for the registration of ordinary shares on the share register and applicable to transfers of ordinary shares to or from the name of the custodian, the depositary, or any nominees upon the making of deposits and withdrawals, respectively;
- certain cable, telex, and facsimile transmission and delivery expenses;
- the expenses and charges incurred by the depositary in the conversion of foreign currency;
- the fees and expenses incurred by the depositary in connection with compliance with exchange control regulations and other regulatory requirements applicable to ordinary shares, ADSs, and ADRs; and
- the fees, charges, costs and expenses incurred by the depositary, the custodian, or any nominee in connection with the ADR program.

ADS fees and charges payable upon (i) the issuance of ADSs, and (ii) the cancellation of ADSs are charged to the person to whom the ADSs are issued (in the case of ADS issuances) and to the person whose ADSs are cancelled (in the case of ADS cancellations). In the case of ADSs issued by the depositary into DTC, the ADS issuance and cancellation fees and charges may be deducted from distributions made through DTC, and may be charged to the DTC participant(s) receiving the ADSs being issued or the DTC participant(s) holding the ADSs being cancelled, as the case may be, on behalf of the beneficial owner(s) and will be charged by the DTC participant(s) to the account of the applicable beneficial owner(s) in accordance with the procedures and practices of the DTC participants as in effect at the time. ADS fees and charges in respect of distributions and the ADS service fee are charged to the holders as of the applicable ADS record date. In the case of distributions of cash, the amount of the applicable ADS fees and charges is deducted from the funds being distributed. In the case of (i) distributions other than cash and (ii) the ADS service fee, holders as of the ADS record date will be invoiced for the amount of the ADS fees and charges and such ADS fees and charges may be deducted from distributions made to holders of ADSs. For ADSs held through DTC, the ADS fees and charges for distributions other than cash and the ADS service fee may be deducted from distributions made through DTC, and may be charged to the DTC participants in accordance with the procedures and practices prescribed by DTC and the DTC participants in turn charge the amount of such ADS fees and charges to the beneficial owners for whom they hold ADSs. In the case of (i) registration of ADS transfers, the ADS transfer fee will be payable by the holders of ADSs whose ADSs are being transferred or by the person to whom the ADSs are transferred, and (ii) conversion of ADSs of one series for ADSs of another series, the ADS conversion fee will be payable by the holder whose ADSs are converted or by the person to whom the converted ADSs are delivered.

In the event of refusal to pay the depositary fees, the depositary may, under the terms of the deposit agreement, refuse the requested service until payment is received or may set off the amount of the depositary fees from any distribution to be made to the ADS holder. Certain of the depositary fees and charges (such as the ADS services fee) may become payable shortly after the closing of the ADS offering. Note that the fees and charges you may be required to pay may vary over time and may be changed by us and by the depositary. You will receive prior notice of such changes. The depositary may reimburse us for certain expenses incurred by us in respect of the ADR program, by making available a portion of the ADS fees charged in respect of the ADR program or otherwise, upon such terms and conditions as we and the depositary agree from time to time.

Amendments and Termination

We may agree with the depositary to modify the deposit agreement at any time without your consent. We undertake to give holders 30 days' prior notice of any modifications that would materially prejudice any of their substantial rights under the deposit agreement. We will not consider to be materially prejudicial to your substantial rights any modifications or supplements that are reasonably necessary for the ADSs to be registered under the Securities Act or to be eligible for book-entry settlement, in each case without imposing or increasing the fees and charges you are required to pay. In addition, we may not be able to provide you with prior notice of any modifications or supplements that are required to accommodate compliance with applicable provisions of law.

You will be bound by the modifications to the deposit agreement if you continue to hold your ADSs after the modifications to the deposit agreement become effective. The deposit agreement cannot be amended to prevent you from withdrawing the ordinary shares represented by your ADSs (except as permitted by law).

We have the right to direct the depositary to terminate the deposit agreement. Similarly, the depositary may in certain circumstances on its own initiative terminate the deposit agreement. In either case, the depositary must give notice to the holders at least 30 days before termination. Until termination, your rights under the deposit agreement will be unaffected.

Termination

After termination, the depositary will continue to collect distributions received (but will not distribute any such property until you request the cancellation of your ADSs) and may sell the securities held on deposit. After the sale, the depositary will hold the proceeds from such sale and any other funds then held for the holders of ADSs in a non-interest bearing account. At that point, the depositary will have no further obligations to holders other than to account for the funds then held for the holders of ADSs still outstanding (after deduction of applicable fees, taxes and expenses).

In connection with the termination of the deposit agreement, the depositary may, independently and without the need for any action by us, make available to holders of ADSs a means to withdraw the ordinary shares and other deposited securities represented by their ADSs and to direct the deposit of such ordinary shares and other deposited securities into an unsponsored American depositary shares program established by the depositary, upon such terms and conditions as the depositary may deem reasonably appropriate, subject however, in each case, to satisfaction of the applicable registration requirements by the unsponsored American depositary shares program under the Securities Act, and to receipt by the depositary of payment of the applicable fees and charges of, and reimbursement of the applicable expenses incurred by, the depositary.

Books of Depositary

The depositary will maintain ADS holder records at its depositary office. You may inspect such records at such office during regular business hours but solely for the purpose of communicating with other holders in the interest of business matters relating to the ADSs and the deposit agreement.

The depositary will maintain in New York facilities to record and process the issuance, cancellation, combination, split-up, and transfer of ADSs. These facilities may be closed from time to time, to the extent not prohibited by law.

Transmission of Notices, Reports and Proxy Soliciting Material

The depositary will make available for your inspection at its office all communications that it receives from us as a holder of deposited securities that we make generally available to holders of deposited securities. Subject to the terms of the deposit agreement, the depositary will send you copies of those communications or otherwise make those communications available to you if we ask it to.

Limitations on Obligations and Liabilities

The deposit agreement limits our obligations and the depositary's obligations to you. Please note the following:

- We and the depositary are obligated only to take the actions specifically stated in the deposit agreement without negligence or bad faith.
- The depositary disclaims any liability for any failure to carry out voting instructions, for any manner in which a vote is cast or for the effect of any vote, provided it acts in good faith and in accordance with the terms of the deposit agreement.
- The depositary disclaims any liability for any failure to determine the lawfulness or practicality of any action, for the content of any document forwarded to you on our behalf or for the accuracy of any translation of such a document, for the investment risks associated with investing in ordinary shares, for the validity or worth of the ordinary shares, for any tax consequences that result from the ownership of ADSs, for the credit-worthiness of any third party, for allowing any rights to lapse under the terms of the deposit agreement, for the timeliness of any of our notices, or for our failure to give notice.

- We and the depositary will not be obligated to perform any act that is inconsistent with the terms of the deposit agreement.
- We and the depositary disclaim any liability if we or the depositary are prevented or forbidden from or subject to any civil or criminal penalty or restraint on account of, or delayed in, doing or performing any act or thing required by the terms of the deposit agreement, by reason of any provision, present or future of any law or regulation, or by reason of present or future provision of any provision of our Articles, or any provision of or governing the securities on deposit, or by reason of any act of God or war or other circumstances beyond our control.
- We and the depositary disclaim any liability by reason of any exercise of, or failure to exercise, any discretion provided for in the deposit agreement or in our Articles or in any provisions of or governing the securities on deposit.
- We and the depositary further disclaim any liability for any action or inaction in reliance on the advice or information received from legal counsel, accountants, any person presenting Shares for deposit, any holder of ADSs or authorized representatives thereof, or any other person believed by either of us in good faith to be competent to give such advice or information.
- We and the depositary also disclaim liability for the inability by a holder to benefit from any distribution, offering, right or other benefit that is made available to holders of ordinary shares but is not, under the terms of the deposit agreement, made available to you.
- We and the depositary may rely without any liability upon any written notice, request or other document believed to be genuine and to have been signed or presented by the proper parties.
- We and the depositary also disclaim liability for any consequential or punitive damages for any breach of the terms of the deposit agreement.
- No disclaimer of any Securities Act liability is intended by any provision of the deposit agreement.
- Nothing in the deposit agreement gives rise to a partnership or joint venture, or establishes a fiduciary relationship, among Mereo, the depositary and you as an ADS holder.
- Nothing in the deposit agreement precludes Citibank (or its affiliates) from engaging in transactions in which parties adverse to Mereo or the ADS owners have interests, and nothing in the deposit agreement obligates Citibank to disclose those transactions, or any information obtained in the course of those transactions, to Mereo or to the ADS owners, or to account for any payment received as part of those transactions.

Taxes

You will be responsible for the taxes and other governmental charges payable on the ADSs and the securities represented by the ADSs. We, the depositary and the custodian may deduct from any distribution the taxes and governmental charges payable by holders and may sell any and all property on deposit to pay the taxes and governmental charges payable by holders. You will be liable for any deficiency if the sale proceeds do not cover the taxes that are due.

The depositary may refuse to issue ADSs; to deliver, transfer, split, and combine ADRs; or to release securities on deposit until all taxes and charges are paid by the applicable holder. The depositary and the custodian may take reasonable administrative actions to obtain tax refunds and reduced tax withholding for any distributions on your behalf. However, you may be required to provide to the depositary and to the custodian proof of taxpayer status and residence and such other information as the depositary and the custodian may require to fulfill legal obligations. You are required to indemnify us, the depositary and the custodian for any claims with respect to taxes based on any tax benefit obtained for you.

Foreign Currency Conversion

The depositary will arrange for the conversion of all foreign currency received into U.S. dollars if such conversion is practical, and it will distribute the U.S. dollars in accordance with the terms of the

deposit agreement. You may have to pay fees and expenses incurred in converting foreign currency, such as fees and expenses incurred in complying with currency exchange controls and other governmental requirements.

If the conversion of foreign currency is not practical or lawful, or if any required approvals are denied or not obtainable at a reasonable cost or within a reasonable period, the depositary may take the following actions in its discretion:

- Convert the foreign currency to the extent practical and lawful and distribute the U.S. dollars to the holders for whom the conversion and distribution is lawful and practical.
- Distribute the foreign currency to holders for whom the distribution is lawful and practical.
- Hold the foreign currency (without liability for interest) for the applicable holders.

Governing Law/Waiver of Jury Trial

The deposit agreement and the ADRs will be interpreted in accordance with the laws of the State of New York. The rights of holders of ordinary shares (including ordinary shares represented by ADSs) is governed by the laws of England and Wales.

AS A PARTY TO THE DEPOSIT AGREEMENT, YOU IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING AGAINST US AND/OR THE DEPOSITARY ARISING OUT OF, OR RELATING TO, THE DEPOSIT AGREEMENT, ANY ADR AND ANY TRANSACTIONS CONTEMPLATED IN THE DEPOSIT AGREEMENT (WHETHER BASED ON CONTRACT, TORT, COMMON LAW OR OTHERWISE).

MATERIAL TAX CONSIDERATIONS

Material U.S. Federal Income Tax Considerations

The following are material U.S. federal income tax consequences to the U.S. Holders (as defined below) of purchasing, owning and disposing of the ADSs and ordinary shares acquired pursuant to this offering, but it does not purport to be a comprehensive description of all tax considerations that may be relevant to a particular person's decision to acquire the securities. This discussion applies only to a U.S. Holder that acquires ADSs in this offering and holds the ADSs or ordinary shares as capital assets for U.S. federal income tax purposes. In addition, it does not describe all of the tax consequences that may be relevant in light of the U.S. Holder's particular circumstances, including any estate, gift, alternative minimum or Medicare contribution tax consequences and any tax consequences applicable to U.S. Holders subject to special rules, such as:

- banks, insurance companies and other financial institutions;
- real estate investment trusts or regulated investment companies;
- dealers or traders in securities that use a mark-to-market method of tax accounting;
- persons holding our ADSs or ordinary shares as part of a straddle, integrated transaction or similar transaction;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- entities or arrangements treated as partnerships for U.S. federal income tax purposes and their partners or investors;
- tax-exempt entities, "individual retirement accounts" or "Roth IRAs";
- S corporations;
- former citizens or residents of the United States;
- a person that is subject to special tax accounting rules under section 451(b) of the U.S. Internal Revenue Code of 1986, as amended (the "Code");
- persons that own or are deemed to own 10% or more of our stock by vote or value; or
- persons holding our ADSs or ordinary shares in connection with a trade or business outside the United States.

If a partnership (or other entity that is classified as a partnership for U.S. federal income tax purposes) owns the ADSs or ordinary shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partner and the partnership. Partnerships owning the ADSs or ordinary shares and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of owning and disposing of the ADSs or ordinary shares.

Persons that own or are deemed to own 10% or more of our stock by vote or value should consult their tax advisers regarding the application of the "controlled foreign corporation" rules to their ownership of our ADSs or ordinary shares.

This discussion is based on the Code, administrative pronouncements, judicial decisions, and final, temporary and proposed Treasury regulations, all as of the date hereof, any of which is subject to change, possibly with retroactive effect.

As used herein, a "U.S. Holder" is a person that, for U.S. federal income tax purposes, is a beneficial owner of our ADSs or ordinary shares and is:

- a citizen or individual resident of the United States;

- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust that (i) is subject to the primary supervision of a court within the United States and subject to the control of one or more U.S. persons for all substantial decisions or (ii) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

U.S. Holders should consult their tax advisers concerning the U.S. federal, state, local and non-U.S. tax consequences of owning and disposing of our ADSs or ordinary shares in their particular circumstances.

For U.S. federal income tax purposes, a beneficial owner of our ADSs generally will be treated as the owner of the underlying ordinary shares represented by such ADSs. Accordingly, gain or loss will generally not be recognized if a U.S. Holder exchanges our ADSs for the underlying ordinary shares.

Passive Foreign Investment Company Rules

Special U.S. tax rules apply to U.S. Holders of stock in companies that are considered to be PFICs. In general, a non-U.S. corporation will be a passive foreign investment company ("PFIC") for any taxable year in which (i) 75% or more of its gross income consists of passive income (the "income test") or (ii) 50% or more of the value of its assets (generally determined on a quarterly average basis) consists of assets that produce, or are held for the production of, passive income (the "asset test"). For purposes of the above calculations, a non-U.S. corporation that directly or indirectly owns at least 25% by value of the shares of another corporation is treated as if it held its proportionate share of the assets of the other corporation and received directly its proportionate share of the income of the other corporation. Passive income generally includes interest, dividends, gains from certain property transactions, rents and royalties (other than certain rents or royalties derived in the active conduct of a trade or business). Cash is a passive asset for PFIC purposes. Goodwill (the value of which may be determined by reference to the company's market capitalization) is treated as an active asset to the extent attributable to activities intended to produce active income.

We hold a significant amount of cash and cash equivalents and this may continue to be the case taking into account the cash raised in this offering. Therefore, whether we will satisfy the asset test for the current or any future taxable year generally will depend on the quarterly value of our goodwill and other intangible assets, and on how quickly we utilize the cash in our business. Because (i) the value of our goodwill may be determined by reference to the market prices of our shares or ADSs, which have been volatile given the nature and early stage of our business and have been declining, (ii) we hold cash and cash equivalents in amounts that could be significant in relation to the value of our goodwill and other intangible assets and (iii) a company's PFIC status is an annual determination that can be made only after the end of each taxable year, there is a significant risk that we could be a PFIC under the asset test. We believe we will be a PFIC for the year ended December 31, 2019 and we were a PFIC for the year ended December 31, 2018. In addition, it is not clear how to apply the income test to a company like us, which for any particular taxable year may have gross income that is either entirely passive or that significantly exceed any active gross income, but the overall losses of which from research and development activities exceed the overall amount of its gross income for that year. We currently do not earn income from sales of drugs. Accordingly, U.S. Holders should invest in our ADSs only if they are willing to bear the U.S. federal income tax consequences associated with investments in PFICs.

We provide the information necessary for a U.S. Holder to make a qualifying electing fund election ("QEF Election") with respect to us and we will also use our best efforts to cause each Lower-tier PFIC

(as defined below) that we control to provide such information. We intend to provide this information for any taxable year during which our only income is interest income or income from financial investments and for any other taxable year for which we determine that we were a PFIC. However, no assurance can be given that such QEF information will be available for any Lower-tier PFIC that we do not wholly-own. We will post the information necessary to make QEF Elections on our website. If we are a PFIC for any taxable year, the consequences to any U.S. Holder will depend in part on whether the U.S. Holder makes a valid QEF Election or mark-to-market election as described below.

If we are a PFIC for any taxable year and any of our non-U.S. subsidiaries or other companies in which we own equity interests were also a PFIC (any such entity, a "Lower-tier PFIC"), U.S. Holders would be deemed to own a proportionate amount (by value) of the shares of each Lower-tier PFIC and would be subject to U.S. federal income tax according to the rules described in the subsequent paragraph on (i) certain distributions by a Lower-tier PFIC and (ii) dispositions of shares of Lower-tier PFICs, in each case as if the U.S. Holders held such shares directly, even though the U.S. Holders had not received the proceeds of those distributions or dispositions.

Generally, if we were a PFIC for any taxable year during which a U.S. Holder holds our ADSs or ordinary shares and the U.S. Holder does not make a valid QEF Election or a mark-to-market election, gain recognized upon a disposition (including, under certain circumstances, a pledge) of our ADSs or ordinary shares by the U.S. Holder will be allocated ratably over the U.S. Holder's holding period for such ADSs or ordinary shares. The amounts allocated to the taxable year of disposition and to years before we became a PFIC will be taxed as ordinary income. The amount allocated to each other taxable year will be subject to tax at the highest rate in effect for that taxable year for individuals or corporations, as appropriate, and an interest charge will be imposed on the resulting tax liability for each relevant taxable year. Further, to the extent that any distribution received by a U.S. Holder on our ADSs or ordinary shares exceeds 125% of the average of the annual distributions received on such securities during the preceding three years or the U.S. Holder's holding period, whichever is shorter (an "excess distribution"), such excess distribution will be subject to taxation in the same manner. If we are a PFIC for any taxable year during which a U.S. Holder owns our ADSs or ordinary shares, we will generally continue to be treated as a PFIC with respect to such U.S. Holder for all succeeding years during which such U.S. Holder owns our ADSs or ordinary shares, even if we cease to meet the threshold requirements for PFIC status. If we are a PFIC for any taxable year but cease to be PFIC for subsequent years, U.S. Holders should consult their tax advisers regarding the advisability of making a "deemed sale" election that would allow them to eliminate the continuing PFIC status under certain circumstances.

To avoid the foregoing rules, a U.S. Holder can make a QEF Election to treat us and each Lower-tier PFIC as a qualified electing fund in the first taxable year that the entity is treated as a PFIC with respect to the U.S. Holder. A U.S. Holder must make the QEF Election for each PFIC by attaching a separate properly completed IRS Form 8621 for that PFIC to the U.S. Holder's timely filed U.S. federal income tax return. A U.S. Holder making a QEF election other than for the first taxable year in which it owns (or is treated as owning) an equity interest in a PFIC would continue to be subject to the rules described in the preceding paragraph with respect to such PFIC, unless the U.S. Holder makes a "deemed sale" election with respect to the PFIC and recognizes gain taxed under the general PFIC rules described above with respect to the PFIC stock's appreciation before the year for which the QEF Election is made.

If a U.S. Holder makes a QEF Election with respect to a PFIC, the U.S. Holder will be taxed on its *pro rata* share of the PFIC's ordinary earnings and net capital gain (at ordinary income and capital gain rates, respectively) for each taxable year that the entity is a PFIC. If a U.S. Holder makes a QEF Election with respect to us, any distributions we pay out of our earnings and profits that were previously included in the U.S. Holder's income under the QEF Election would not be taxable to the U.S. Holder.

A U.S. Holder will increase its tax basis in its ADSs or ordinary shares by an amount equal to any income included under the QEF Election and will decrease its tax basis by any amount distributed on the ADSs or ordinary shares that is not included in the U.S. Holder's income. In addition, a U.S. Holder will recognize capital gain or loss on the disposition of ADSs or ordinary shares in an amount equal to the difference between the amount realized and the U.S. Holder's adjusted tax basis in the ADSs or ordinary shares, as determined in U.S. dollars. A. U.S. Holder will not be taxed on the ordinary income and net capital gain under the QEF rules for any year that we are not a PFIC.

Based on the nature of our expected income, the expected composition of our assets, and our business prospects, we do not currently expect to have significant ordinary earnings or net capital gain in any taxable year in which we may be a PFIC. However, it is difficult to predict the nature and composition of our income and assets and the value of our assets in light of the volatile nature of earnings patterns of emerging pharmaceutical or biotechnology companies such as us. Accordingly, U.S. Holders should note that if they make QEF Elections with respect to us and our subsidiaries, they may be required to pay U.S. federal income tax with respect to their ADSs or ordinary shares for any taxable year in which we have a positive amount of earnings or net capital gains even if we do not make any distributions in such year. U.S. Holders should consult their tax advisers regarding the advisability of making QEF Elections in their particular circumstances.

Mark-to-Market Election

Alternatively, if we are a PFIC for any taxable year and if our ADSs or ordinary shares are "regularly traded" on a "qualified exchange," a U.S. Holder could make a mark-to-market election that will result in tax treatment different from the general tax treatment described in the two preceding paragraphs. Our ADSs and/or ordinary shares will be treated as "regularly traded" in any calendar year in which more than a *de minimis* quantity of the ADSs and/or ordinary shares are traded on a qualified exchange on at least 15 days during each calendar quarter. NASDAQ, on which the ADSs are listed, is a qualified exchange for this purpose. The Internal Revenue Service has not identified specific non-U.S. exchanges that are "qualified" for this purpose. If a U.S. Holder makes a valid mark-to-market election, the U.S. Holder generally will recognize as ordinary income any excess of the fair market value of its ADSs or ordinary shares at the end of each taxable year over the adjusted tax basis of such ADSs or ordinary shares, and will recognize an ordinary loss in respect of any excess of the adjusted tax basis of its ADSs or ordinary shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a U.S. Holder makes the election, the U.S. Holder's tax basis in our ADSs or ordinary shares will be adjusted to reflect these income or loss amounts. Any gain recognized on the sale or other disposition of our ADSs or ordinary shares in a year in which we are a PFIC will be treated as ordinary income and any loss will be treated as an ordinary loss (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a valid mark-to-market election is made for any year in which we are a PFIC, distributions will be treated as described below under "—Taxation of Distributions" except that the preferential tax rates on dividends paid to non-corporate U.S. Holders will not apply. U.S. Holders will not be able to make a mark-to-market election with respect to Lower-tier PFICs, if any. U.S. Holders should consult their tax advisers as to the availability and desirability of a mark-to-market election in their particular circumstances if we are a PFIC for any taxable year.

If a U.S. Holder owns our ADSs or ordinary shares during any year in which we are a PFIC, the U.S. Holder generally will be required to file annual reports on IRS Form 8621 (or any successor form) with respect to us and any Lower-tier PFIC, generally with the U.S. Holder's U.S. federal income tax return for that year. U.S. Holders should consult their tax advisers regarding our PFIC status for any taxable year and the potential application of the PFIC rules to an investment in our ADSs or ordinary shares.

Taxation of Distributions

The discussion under "—Taxation of Distributions" is subject to the PFIC rules described in "—Passive Foreign Investment Company Rules" above. Distributions paid on ADSs or ordinary shares, other than certain pro rata distributions of our ordinary shares, will be treated as dividends to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will be treated first as a tax-free return of capital to the extent of the U.S. Holder's basis in the ADSs or ordinary shares and then as capital gain. For any taxable year in which we do not maintain calculations of our earnings and profits under U.S. federal income tax principles, it is expected that any distributions generally will be reported to U.S. Holders as dividends. Dividends will not be eligible for the dividends-received deduction generally available to U.S. corporations under the Code. Subject to applicable limitations, dividends paid to certain non-corporate U.S. Holders may be eligible for taxation at a preferential tax rate provided that we were not a PFIC for the taxable year in which the dividend is paid or the prior taxable year. Non-corporate U.S. Holders should consult their tax advisers regarding the availability of this preferential rate in the light of the discussion in "—Passive Foreign Investment Company Rules" above and in their particular circumstances.

If dividend payments in respect of our ADSs or ordinary shares are made in a currency other than the U.S. dollar, the amount of the dividend distribution that a U.S. Holder must include in income will be the U.S. dollar value of the payments made in such other currency, determined at the spot U.S. dollar exchange rate on the date the dividend distribution is includible in income, regardless of whether the payment is in fact converted into U.S. dollars. Generally, if the foreign currency received as a dividend is not converted into U.S. dollars on the date of receipt, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in income to the date the payment is actually converted into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes. U.S. Holders are urged to consult their tax advisors regarding the tax consequences of receiving, converting or disposing of any non-U.S. currency, received or deemed received as dividends on our ADSs or ordinary shares or on the sale or retirement of an ADS or an ordinary share.

Dividends will be included in a U.S. Holder's income on the date of the U.S. Holder's, or in the case of our ADSs, the depositary's, receipt. Dividends generally will be income from non-U.S. sources, which may be relevant in calculating a U.S. Holder's foreign tax credit limitation. Subject to certain conditions and limitations, non-U.S. tax withheld, if any, on dividends may be deducted from such U.S. Holder's taxable income or credited against such U.S. Holder's U.S. federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends that we distribute generally should constitute "passive category income," or, in the case of certain U.S. Holders, "general category income." A foreign tax credit for foreign taxes imposed on distributions may be denied if a U.S. Holder does not satisfy certain minimum holding period requirements. The rules relating to the determination of the foreign tax credit are complex, and U.S. Holders are urged to consult their tax advisors to determine whether and to what extent such U.S. Holder will be entitled to a foreign tax credit.

Sale or Other Taxable Disposition

Except as described under "—Passive Foreign Investment Company Rules" above, a U.S. Holder will generally recognize capital gain or loss on a sale or other taxable disposition of our ADSs or ordinary shares in an amount equal to the difference between the amount realized on the sale or disposition and the U.S. Holder's tax basis in the ADSs or ordinary shares disposed of, in each case as determined in U.S. dollars. Any such gain or loss will be long-term capital gain or loss if at the time of the sale or disposition the U.S. Holder has owned our ADSs or ordinary shares for more than one year.

Long-term capital gains recognized by non-corporate U.S. Holders may be subject to a tax rate that is lower than the rate applicable to ordinary income. The deductibility of capital losses is subject to limitations. Any capital gain or loss recognized upon the sale or disposition of ADSs or ordinary shares will generally be treated as U.S.-source income for foreign tax credit limitation purposes. U.S. Holders that sell the ADSs or ordinary shares for an amount denominated in a currency other than the U.S. dollar should consult their tax advisers regarding any potential foreign currency gain or loss that may have to be recognized.

Information Reporting and Backup Withholding

In general, payments of dividends and proceeds from the sale or other disposition of our ADSs or ordinary shares that are made within the United States or through certain U.S.-related financial intermediaries may be subject to information reporting and backup withholding, unless (i) in the case of information reporting, the U.S. Holder is a corporation or other "exempt recipient" and (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS.

Foreign Financial Asset Information Reporting

Certain U.S. Holders who are individuals (or certain specified entities) may be required to report information relating to their ownership of our ADSs or ordinary shares, or non-U.S. accounts through which our ADSs or ordinary shares are held. Penalties and potential other adverse tax consequences may be imposed if a U.S. Holder is required to submit such information to the IRS and fails to do so. U.S. Holders should consult their tax advisers regarding their reporting obligations with respect to our ADSs or ordinary shares.

Material United Kingdom Tax Considerations

The following is a description of the material U.K. tax considerations relating primarily to the ownership and disposal of our ADSs by the U.S. Holders described above. The U.K. tax comments set out below are based on current U.K. tax law as applied in England and Wales, and HMRC practice (which may not be binding on HMRC) as at the date of this summary, both of which are subject to change, possibly with retrospective effect. They are intended as a general guide and, save where otherwise stated, only apply to you if you are not resident in the U.K. for U.K. tax purposes and do not hold our ADSs for the purposes of a trade, profession or vocation that you carry on in the U.K. through a branch, agency or permanent establishment in the U.K. and if you hold our ADSs as an investment for U.K. tax purposes and are not subject to special rules.

This summary does not address all possible tax consequences relating to an investment in our ADSs. In particular it does not cover the U.K. inheritance tax consequences of holding our ADSs. It assumes that DTC has not made an election under section 97A(1) of the Finance Act 1986. It assumes that we do not (and will not at any time) derive 75% or more of our qualifying asset value, directly or indirectly, from U.K. land, and that we are and remain solely resident in the U.K. for tax purposes. This summary is for general information only and is not intended to be, nor should it be considered to be, legal or tax advice to any particular holder. Holders of our ADSs are strongly urged to consult their tax advisers in connection with the U.K. tax consequences of their investment in our ADSs.

U.K. Taxation of Dividends

Mereo will not be required to withhold amounts for or on account of U.K. tax at source when paying a dividend in respect of its ordinary shares.

Holders who hold our ADSs as an investment, who are not resident in the U.K. for U.K. tax purposes and who do not hold their ADSs in connection with any trade, profession or vocation carried on by them in the U.K. through a branch, agency or permanent establishment in the U.K. should not be subject to U.K. tax in respect of any dividends on our ordinary shares.

U.K. Taxation of Capital Gains

An individual holder who is not resident in the U.K. for U.K. tax purposes should not be liable to U.K. capital gains tax on capital gains realized on the disposal of their ADSs unless such holder carries on a trade, profession or vocation in the U.K. through a branch or agency in the U.K. to which ADSs are attributable.

Any such individual holder of our ADSs who is temporarily non-resident for U.K. tax purposes will, in certain circumstances, become liable to U.K. tax on capital gains in respect of gains realized while they were not resident in the U.K.

A corporate holder of our ADSs which is not resident in the U.K. for U.K. tax purposes should not be liable for U.K. corporation tax on chargeable gains realized on the disposal of our ADSs unless it carries on a trade in the U.K. through a permanent establishment in the U.K. to which our ADSs are attributable.

Stamp Duty and Stamp Duty Reserve Tax

The following statements apply to all holders, regardless of their jurisdiction of tax residence.

It is assumed for the purposes of the following statements that all transfers or, or agreements to transfer, our ordinary shares are only made at times when (i) our ordinary shares are admitted to trading on AIM but are not listed on any market (with the term “listed” being construed in accordance with section 99A of the Finance Act 1986); and (ii) AIM continues to be accepted as a “recognised growth market” (as construed in accordance with section 99A of the Finance Act 1986). Holders of our ADSs who propose to transfer, or agree to transfer, our ordinary shares during such time as these conditions are not met (including during any period between the creation and issue of our ADSs and the admission to trading of our ordinary shares on AIM) are strongly urged to obtain their own advice.

No stamp duty is payable on the issue of our ordinary shares into a depositary receipt system (such as, Mereo understands, that operated by Citibank) or a clearance service (such as, Mereo understands, DTC). No stamp duty reserve tax (“SDRT”) should be payable on the issue of our ordinary shares into a depositary receipt system or a clearance service. Accordingly, no stamp duty or SDRT should be payable on the creation and issue of our ADSs pursuant to the issue of our ordinary shares to Citibank’s custodian.

No stamp duty or SDRT should be payable on transfers of, or agreements to transfer, our ordinary shares into a depositary receipt system or a clearance service.

No SDRT or stamp duty should be payable on paperless transfers of, or agreements to transfer, our ADSs through the facilities of DTC.

No stamp duty should be payable on a written instrument transferring, or a written agreement to transfer, our ADSs provided the instrument or agreement is executed and remains at all times outside the U.K. No SDRT should be payable in respect of agreements to transfer our ADSs.

No stamp duty or SDRT should be payable on transfers of, or agreements to transfer, our ordinary shares outside of a depositary receipt system or a clearance service.

THE ASPIRE CAPITAL TRANSACTION

General

On February 10, 2020, we entered into the Purchase Agreement, which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $28.0 million of our ordinary shares that are exchangeable for ADSs, which includes the Initial Shares sold by us to the selling shareholder for $3.0 million, over the term of the Purchase Agreement. In consideration for entering into the Purchase Agreement, concurrently with the execution of the Purchase Agreement, we paid to Aspire Capital a $300,000 commitment fee, which was satisfied wholly by the issuance to Aspire Capital of 2,862,595 ordinary shares that are exchangeable for 572,519 ADSs. Concurrently with entering into the Purchase Agreement, we also entered into the Registration Rights Agreement, in which we agreed to file one or more registration statements as permissible and necessary to register under the Securities Act, the sale of the ADSs that have been and may be issued to Aspire Capital under the Purchase Agreement.

As of February 11, 2020, there were 112,255,142 ordinary shares outstanding (approximately 35% held by non-affiliates), excluding the $25.0 million worth of ordinary shares that are exchangeable for ADSs issuable to Aspire Capital pursuant to the Purchase Agreement. The number of ADSs representing ordinary shares ultimately offered for sale by Aspire Capital is dependent upon the number of ADSs purchased by Aspire Capital under the Purchase Agreement.

Pursuant to the Purchase Agreement and the Registration Rights Agreement, we are registering 89,510,410 ordinary shares represented by 17,902,082 ADSs under the Securities Act, which includes (i) the Initial Shares of 11,432,925 ordinary shares issued to the selling shareholder and exchangeable for 2,286,585 ADSs, (ii) the Commission Shares of 2,862,595 ordinary shares exchangeable for 572,519 ADSs issued to the selling shareholder in satisfaction of the commission fee due to Aspire Capital under the Purchase Agreement, and (iii) up to an additional $25.0 million worth of ordinary shares that are exchangeable for ADSs, which we may issue to Aspire Capital after this registration statement is declared effective under the Securities Act. All $28.3 million ordinary shares that are exchangeable for ADSs issued or issuable to Aspire Capital pursuant to the Purchase Agreement are being offered pursuant to this prospectus.

After the SEC has declared effective the registration statement of which this prospectus is a part, on any business day on which the closing sale price of our ADSs is not less than $0.25 per share, we have the right, in our sole discretion, to present Aspire Capital with a Purchase Notice, directing Aspire Capital (as principal) to purchase up to 150,000 ADSs per business day, up to $25.0 million worth of our ordinary shares exchangeable for ADSs in the aggregate over the term of the Purchase Agreement, at a Purchase Price calculated by reference to the prevailing market price of our ADSs over the preceding 10-business day period (as more specifically described below); however, no sale pursuant to a Purchase Notice may exceed $0.5 million per business day.

In addition, on any date on which we submit a Purchase Notice to Aspire Capital for at least 150,000 ADSs, we also have the right, in our sole discretion, to present Aspire Capital with a VWAP Purchase Notice directing Aspire Capital to purchase an amount of ADSs equal to up to 30% of the aggregate of the Company's ADSs traded on the Nasdaq on the next business day, subject to the VWAP Purchase ADS Volume Maximum and the VWAP Minimum Price Threshold and subject to a maximum of 250,000 ADSs. The VWAP Purchase Price is calculated by reference to the prevailing market price of our ADSs (as more specifically described below).

The Purchase Agreement provides that the Company and Aspire Capital shall not effect any sales under the Purchase Agreement on any purchase date where the closing sale price of our ADSs is less than the Floor Price. There are no trading volume requirements or restrictions under the Purchase

Agreement, and we will control the timing and amount of any sales of our ADSs to Aspire Capital. Aspire Capital has no right to require any sales by us, but is obligated to make purchases from us as we direct in accordance with the Purchase Agreement. There are no limitations on use of proceeds, financial or business covenants, restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement. Aspire Capital may not assign its rights or obligations under the Purchase Agreement. The Purchase Agreement may be terminated by us at any time, at our discretion, without any penalty or cost to us.

Purchase of ADSs under the Purchase Agreement

Under the Purchase Agreement, on any business day selected by us on which the closing sale price of our ADSs is at least $0.25 per share, we may direct Aspire Capital to purchase up to 150,000 ADSs representing 750,000 ordinary shares per business day. The Purchase Price of such ADSs is equal to the lesser of:

- the lowest sale price of our ADSs on the purchase date; or
- the arithmetic average of the three lowest closing sale prices for our ADSs during the 10 consecutive business days ending on the business day immediately preceding the purchase date.

In addition, on any date on which we submit a Purchase Notice to Aspire Capital for purchase of 150,000 ADSs, we also have the right to direct Aspire Capital to purchase an amount of ADSs equal to up to 30% of the aggregate of our ADSs traded on the Nasdaq on the next business day, subject to a maximum number of 250,000 ADSs and subject to the VWAP Purchase ADS Volume Maximum and the VWAP Minimum Price Threshold, which is equal to the greater of (a) 80% of the closing price of our ADSs on the business day immediately preceding the VWAP Purchase Date or (b) such higher price as set forth by us in the VWAP Purchase Notice. The VWAP Purchase Price of such ADSs is the lower of:

- the closing sale price on the VWAP Purchase Date; or
- 97% of the volume-weighted average price for our ADSs traded on the Nasdaq:
  - on the VWAP Purchase Date, if the aggregate ADSs to be purchased on that date have not exceeded the VWAP Purchase Share Volume Maximum; or
  - during that portion of the VWAP Purchase Date until such time as the sooner to occur of (i) the time at which the aggregate ADSs traded on the Nasdaq exceed the VWAP Purchase ADS Volume Maximum or (ii) the time at which the sale price of our ADSs falls below the VWAP Minimum Price Threshold.

The Purchase Price will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business day(s) used to compute the Purchase Price. We may deliver multiple Purchase Notices and VWAP Purchase Notices to Aspire Capital from time to time during the term of the Purchase Agreement, so long as the most recent purchase has been completed.

Minimum Share Price

Under the Purchase Agreement, we and Aspire Capital may not effect any sales of our ADSs under the Purchase Agreement on any business day that the closing sale price of our ADSs is less than $0.25 per share.

Events of Default

No sales are permitted to be made under the Purchase Agreement upon the occurrence of any of the following, among other, events of default:

- the effectiveness of any registration statement that is required to be maintained effective pursuant to the terms of the Registration Rights Agreement between us and Aspire Capital lapses for any reason (including, without limitation, the issuance of a stop order) or is unavailable to Aspire Capital for sale of our ADSs, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period, which is not in connection with a post-effective amendment to any such registration statement; in connection with any post-effective amendment to such registration statement that is required to be declared effective by the SEC such lapse or unavailability may continue for a period of no more than 30 consecutive business days;
- the suspension from trading or failure of our ADSs to be listed on our principal market for a period of three consecutive business days;
- the delisting of our ADSs from our principal market, provided our ADSs are not immediately thereafter trading on the New York Stock Exchange, the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Select Market, the Nasdaq Global Market, the OTB Bulletin Board or the OTCQB marketplace or OTCQX marketplace of the OTC Markets Group;
- our transfer agent's failure to issue to Aspire Capital ADSs which Aspire Capital is entitled to receive under the Purchase Agreement within five business days after an applicable purchase date;
- any breach by us of the representations or warranties or covenants contained in the Purchase Agreement or any related agreements which could have a material adverse effect on us, subject to a cure period of five business days;
- if we become insolvent or are generally unable to pay our debts as they become due; or
- any participation or threatened participation in insolvency or bankruptcy proceedings by or against us.

The Purchase Agreement will be automatically terminated in the event of any participation in insolvency or bankruptcy proceedings by or against us.

Our Termination Rights

The Purchase Agreement may be terminated by us at any time, at our discretion, without any penalty or cost to us.

No Short-Selling or Hedging by Aspire Capital

Aspire Capital has agreed that neither it nor any of its agents, representatives and affiliates shall engage in any direct or indirect short-selling or hedging of our securities during any time prior to the termination of the Purchase Agreement.

Effect of Performance of the Purchase Agreement on Our Shareholders

The Purchase Agreement does not limit the ability of Aspire Capital to sell any or all of the $25.0 million worth of ordinary shares exchangeable for ADSs registered in this offering. It is anticipated that shares registered in this offering will be sold over a period of up to approximately 30 months from the date of this prospectus. The sale by Aspire Capital of a significant amount of ADSs registered in this offering at any given time could cause the market price of our ADSs to decline and/or to be highly volatile. Aspire Capital may ultimately purchase all, some or none of the $25.0 million worth of ordinary shares exchangeable for ADSs not yet issued but registered in this offering. After it

has acquired such shares, it may sell all, some or none of such ADSs. Therefore, sales to Aspire Capital by us pursuant to the Purchase Agreement also may result in substantial dilution to the interests of other holders of our ADSs. However, we have the right to control the timing and amount of any sales of our ADSs to Aspire Capital and the Purchase Agreement may be terminated by us at any time at our discretion without any penalty or cost to us.

SELLING SHAREHOLDER

The selling shareholder may from time to time offer and sell any or all of the ADSs representing ordinary shares set forth below pursuant to this prospectus. When we refer to the "selling shareholder" in this prospectus, we mean the entity listed in the table below, and its respective pledgees, donees, permitted transferees, assignees, successors and others who later come to hold any of the selling shareholder's interests in our ADSs other than through a public sale.

The following table sets forth, as of the date of this prospectus, the name of the selling shareholder for whom we are registering shares for sale to the public, the number of ADSs beneficially owned by the selling shareholder prior to this offering, the total number of ADSs that the selling shareholder may offer pursuant to this prospectus and the number of ADSs that the selling shareholder will beneficially own after this offering. Except as noted below, the selling shareholder does not have, or within the past three years has not had, any material relationship with us or any of our predecessors or affiliates and the selling shareholder is not or was not affiliated with registered broker-dealers.

Based on the information provided to us by the selling shareholder, assuming that the selling shareholder sells all of the shares of our ADSs beneficially owned by it that have been registered by us and does not acquire any additional ADSs during the offering, the selling shareholder will not own any ADSs other than those appearing in the column entitled "Beneficial Ownership After This Offering." We cannot advise you as to whether the selling shareholder will in fact sell any or all of such ADSs. In addition, the selling shareholder may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, the ADSs in transactions exempt from the registration requirements of the Securities Act after the date on which it provided the information set forth in the table below. Each ADS represents five of our ordinary shares.

	Beneficial Ownership Before this Offering(1)			Beneficial Ownership After this Offering(2)	
Name	Number of ADSs	%	ADSs Being Offered	Number of ADSs	%
Aspire Capital Fund, LLC(3)	2,859,104	12.7%	2,859,104	0	0%

(1) Based on the Initial Shares of 14,295,520 ordinary shares (equivalent to 2,859,104 ADSs) that were issued to Aspire Capital pursuant to the Purchase Agreement, which includes (i) the Initial Shares of 11,432,925 ordinary shares exchangeable for 2,286,585 ADSs and (ii) the Commission Shares of 2,862,595 ordinary shares exchangeable for 572,519 ADSs. Each ADS represents five of our ordinary shares.

(2) Assumes the sale of all Initial Shares and Commission Shares registered pursuant to this prospectus.

(3) Aspire Capital Partners LLC ("Aspire Partners") is the Managing Member of Aspire Capital Fund LLC ("Aspire Fund"). SGM Holdings Corp ("SGM") is the Managing Member of Aspire Partners. Mr. Steven G. Martin ("Mr. Martin") is the president and sole shareholder of SGM, as well as a principal of Aspire Partners. Mr. Erik J. Brown ("Mr. Brown") is the president and sole shareholder of Red Cedar Capital Corp ("Red Cedar"), which is a principal of Aspire Partners. Mr. Christos Komissopoulos ("Mr. Komissopoulos") is president and sole shareholder of Chrisko Investors Inc. ("Chrisko"), which is a principal of Aspire Partners. Mr. William F. Blank, III ("Mr. Blank") is president and sole shareholder of WML Ventures Corp. ("WML Ventures"), which is a principal of Aspire Partners. Each of Aspire Partners, SGM, Red Cedar, Chrisko, WML Ventures, Mr. Martin, Mr. Brown, Mr. Komissopoulos and Mr. Blank may be deemed to be a beneficial owner of ADSs by Aspire Fund. Each of Aspire Partners, SGM, Red Cedar, Chrisko, WML Ventures, Mr. Martin, Mr. Brown, Mr. Komissopoulos and Mr. Blank disclaims beneficial ownership of the ADSs held by Aspire Fund.

(4) As of the date hereof, 14,295,520 ordinary shares which may be exchanged for 2,859,104 ADSs have been issued to Aspire Capital under the Purchase Agreement. We may elect in our sole discretion to sell to Aspire Capital up to an additional $25.0 million worth of ordinary shares exchangeable for ADSs under the Purchase Agreement, but Aspire Capital does not presently beneficially own those shares as determined in accordance with the rules of the SEC.

PLAN OF DISTRIBUTION

The securities offered by this prospectus are being offered by Aspire Capital, the selling shareholder. The securities may be sold or distributed from time to time by the selling shareholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the securities offered by this prospectus may be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- "at the market" into an existing market for the ADSs;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the securities may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the securities may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

The selling shareholder may transfer the securities by other means not described in this prospectus.

Brokers, dealers, underwriters, or agents participating in the distribution of the securities as agents may receive compensation in the form of commissions, discounts, or concessions from the selling shareholder and/or purchasers of the securities for whom the broker-dealers may act as agent. Aspire Capital has informed us that each such broker-dealer will receive commissions from Aspire Capital which will not exceed customary brokerage commissions.

Aspire Capital is an "underwriter" within the meaning of the Securities Act.

Neither we nor Aspire Capital can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between Aspire Capital, any other stockholder, broker, dealer, underwriter, or agent relating to the sale or distribution of the securities offered by this prospectus.

We will pay all of the expenses incident to the registration, offering, and sale of the securities to the public other than commissions or discounts of underwriters, broker-dealers, or agents. We have agreed to indemnify Aspire Capital and certain other persons against certain liabilities in connection with the offering of securities offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Aspire Capital has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Aspire Capital specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons, we have been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore, unenforceable.

Aspire Capital and its affiliates have agreed not to engage in any direct or indirect short selling or hedging of our securities during the term of the Purchase Agreement.

We have advised Aspire Capital that while it is engaged in a distribution of the securities included in this prospectus it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling shareholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered hereby this prospectus.

We may suspend the sale of securities by Aspire Capital pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional material information.

This offering will terminate on the date that all shares offered by this prospectus have been sold by Aspire Capital.

EXPENSES OF THE OFFERING

We estimate that our expenses in connection with the offering will be as follows:

Expenses	Amount
SEC registration fee	$ 3,835.00
Legal fees and expenses	$ 200,000.00
Accounting fees and expenses	$ 65,000.00
Miscellaneous costs	$ 5,000.00
Total	$ 273,835.00

All amounts in the table are estimates except the SEC registration fee. We will pay all of the expenses referred to above.

LEGAL MATTERS

Mayer Brown LLP has passed upon certain legal matters regarding the securities offered hereby. The validity of the ordinary shares underlying the ADSs to be offered pursuant to this prospectus will be passed upon for us by Mayer Brown International LLP.

EXPERTS

The consolidated financial statements of Mereo BioPharma Group plc at December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, appearing in this prospectus and registration statement, have been audited by Ernst & Young LLP (UK), independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of OncoMed Pharmaceuticals, Inc. at December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, appearing in this prospectus and registration statement, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

SERVICE OF PROCESS AND ENFORCEMENT OF LIABILITIES

We are incorporated and currently existing under the laws of England and Wales. In addition, most of our directors and officers reside outside of the United States and most of our assets are located outside of the United States. As a result, it may be difficult for investors to effect service of process in the United States on us or those persons or to enforce in the United States judgments obtained in United States courts against us or those persons based on the civil liability or other provisions of the United States securities laws or other laws.

In addition, uncertainty exists as to whether the courts of England and Wales would:

- recognize or enforce judgments of United States courts obtained against us or our directors or officers predicated upon the civil liabilities provisions of the securities laws of the United States or any state in the United States; or
- entertain original actions brought in England and Wales against us or our directors or officers predicated upon the securities laws of the United States or any state in the United States.

There is currently no treaty between (i) the United States and (ii) England and Wales providing for reciprocal recognition and enforcement of judgments of United States courts in civil and commercial matters, although the United States and the United Kingdom are both parties to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards. A final judgment for the payment of money rendered by any general or state court in the United States based on civil liability, whether or not predicated solely upon the United States securities laws, will not be automatically enforceable in England and Wales. Any final and conclusive monetary judgment for a definite sum obtained against us in United States courts will be treated by the courts of England and Wales as a cause of action in itself and sued upon as a debt at common law so that no retrial of the issues will be necessary, provided that:

- the relevant U.S. court had jurisdiction over the original proceedings according to English conflicts of laws principles at the time when proceedings were initiated—in order to establish that, it would be necessary that we either submitted to the U.S. jurisdiction or were resident/present or carrying on business within the U.S. jurisdiction and were duly served with process;
- the U.S. judgment was final and conclusive in the sense of being final and unalterable in the court that pronounced it and being for a definite sum of money and it is currently enforceable in the United States;
- the judgment given by the courts was not in respect of penalties, taxes, fines, or similar fiscal or revenue obligations (or otherwise based on a U.S. law that an English court considers to relate to a penal, revenue or other public law);
- the judgment was not procured by fraud;
- the judgment was not obtained following a breach of a jurisdictional or arbitration clause, unless with the agreement of the defendant or the defendant's subsequent submission to the jurisdiction of the court;
- recognition or enforcement of the judgment in England and Wales would not be contrary to public policy or the Human Rights Act 1998;
- the proceedings pursuant to which judgment was obtained were not contrary to natural justice;
- the U.S. judgment was not arrived at by doubling, trebling, or otherwise multiplying a sum assessed as compensation for the loss or damages sustained and not being otherwise in breach of Section 5 of the U.K. Protection of Trading Interests Act 1980, or is a judgment based on measures designated by the Secretary of State under Section 1 of that Act or is otherwise unlawful under English law; and

- there is not a prior conflicting decision of an English court or the court of another jurisdiction whose judgment the English court recognizes on the issues in question between the same parties.

Whether these requirements are met in respect of a judgment based upon the civil liability provisions of the United States securities laws, including whether the award of monetary damages under such laws would constitute a penalty, is an issue for the English court making such decision.

Subject to the foregoing, investors may be able to enforce in England and Wales judgments in civil and commercial matters that have been obtained from U.S. federal or state courts. Nevertheless, we cannot assure you that those judgments will be recognized or enforceable in England and Wales.

If an English court gives judgment for the sum payable under a U.S. judgment, the English judgment will be enforceable by methods generally available for this purpose. These methods generally permit the English court discretion to prescribe the manner of enforcement. In addition, it may not be possible to obtain an English judgment or to enforce that judgment if the judgment debtor is or becomes subject to any insolvency or similar proceedings, or if the judgment debtor has any set-off or counterclaim against the judgment creditor. Also note that, in any enforcement proceedings, the judgment debtor may raise any counterclaim that could have been brought if the action had been originally brought in England unless the subject of the counterclaim was in issue and denied in the U.S. proceedings.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement (including amendments and exhibits to the registration statement) on Form F-1 under the Securities Act. This prospectus, which is part of the registration statement, does not contain all of the information set forth in the registration statement and the exhibits and schedules to the registration statement. For further information, we refer you to the registration statement and the exhibits and schedules filed as part of the registration statement. If a document has been filed as an exhibit to the registration statement, we refer you to the copy of the document that has been filed. Each statement in this prospectus relating to a document filed as an exhibit is qualified in all respects by the filed exhibit.

We are subject to the informational requirements of the Exchange Act. Accordingly, we are required to file reports and other information with the SEC, including annual reports on Form 20-F and reports on Form 6-K. The SEC maintains an Internet website that contains reports, proxy and information statements, and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

As a foreign private issuer, we are exempt under the Exchange Act from, among other things, the rules prescribing the furnishing and content of proxy statements, and our board members, executive officers, and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

We maintain a corporate website at https://www.mereobiopharma.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus and our website address is included in this prospectus as an inactive textual reference only.

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Consolidated statement of comprehensive loss
for the six months ended June 30, 2019

	Notes	Six months ended June 30, 2019	Six months ended June 30, 2018	Year ended December 31, 2018
		Unaudited		Audited
			(in £)	
Research and development expenses		**(11,918,484)**	(10,864,310)	(22,703,553)
Administrative expenses		**(6,461,759)**	(7,101,760)	(12,504,887)
Operating loss		**(18,380,243)**	(17,966,070)	(35,208,440)
Net income recognised on acquisition of subsidiary	4	**1,035,379**	—	—
Finance income		**137,014**	151,467	306,831
Finance charge		**(1,454,222)**	(1,587,150)	(2,360,648)
Net foreign exchange gain/(loss)		**(20,127)**	49,305	(43,863)
Loss before tax		**(18,682,199)**	(19,352,448)	(37,306,120)
Taxation		**2,458,567**	2,364,904	5,277,380
Loss for the period, attributable to equity holders of the parent		**(16,223,632)**	(16,987,544)	(32,028,740)
Basic and diluted loss per share for the period		**(0.22)**	(0.24)	(0.45)
Other comprehensive income/(loss)				
Items that may be subsequently reclassified to the income statement				
Fair value changes on investments held at fair value through OCI		**88,033**	—	—
Currency translation of foreign operations		**710,830**	—	—
Total comprehensive loss for the period, attributable to equity holders of the parent		**(15,424,769)**	(16,987,544)	(32,028,740)

Consolidated balance sheet
as at June 30, 2019

	Notes	Six months ended June 30, 2019	Six months ended June 30, 2018	Year ended December 31, 2018
		Unaudited		Audited
			(in £)	
Assets				
Non-current assets				
Property, plant and equipment	5	**13,100,261**	151,996	148,935
Intangible assets	6	**45,156,708**	32,690,229	32,632,229
		58,256,969	32,842,225	32,781,164
Current assets				
Prepayments		**3,068,326**	1,225,744	1,066,932
R&D tax credits		**7,744,634**	10,516,989	5,277,380
Other receivables		**1,953,886**	584,821	608,893
Short-term investments		**7,828,066**	2,500,000	2,500,000
Cash and short-term deposits		**28,289,504**	34,412,363	25,041,945
		48,884,416	49,239,917	34,495,150
Total assets		**107,141,385**	82,082,142	67,276,314
Equity and liabilities				
Equity				
Issued capital	8	**293,879**	213,435	213,721
Share premium	8	**121,684,154**	118,369,523	118,492,073
Other capital reserves	8	**58,003,847**	17,746,031	18,592,618
Employee Benefit Trust shares	11	**(1,304,842)**	—	(306,838)
Other reserves		**7,000,000**	7,000,000	7,000,000
Accumulated loss		**(127,356,393)**	(96,179,599)	(111,220,794)
Translation reserve		**710,830**	—	—
Total equity		**59,031,475**	47,149,390	32,770,780
Non-current liabilities				
Provisions	9	**1,926,916**	3,993,058	2,641,353
Interest-bearing loans and borrowings	7	**11,720,999**	15,260,753	14,646.753
Other liabilities		**34,289**	—	34,289
Warrant liability	10	**225,473**	1,534,964	1,005,613
Lease liability		**13,138,521**	—	—
		27,046,198	20,788,775	18,328,008
Current liabilities				
Trade and other payables		**6,758,235**	4,983,626	4,570,307
Accruals		**5,960,684**	3,222,982	4,437,321
Provisions	9	**333,556**	293,000	332,014
Interest-bearing loans and borrowings	7	**8,011,237**	5,644,369	6,837,884
		21,063,712	14,143,977	16,177,526
Total liabilities		**48,109,910**	34,932,752	34,505,534
Total equity and liabilities		**107,141,385**	82,082,142	67,276,314

Consolidated statement of cash flows
for the six months ended June 30, 2019

	Notes	Six months ended June 30, 2019 Unaudited £	Six months ended June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
Operating activities				
Loss before tax		**(18,682,199)**	(19,352,448)	(37,306,120)
Adjustments to reconcile loss before tax to net cash flows from operating activities:				
– Depreciation and impairment of property, plant and equipment		**724,221**	20,196	37,796
– Share-based payment expense		**492,801**	1,386,862	2,189,293
– Net foreign exchange (gain)/loss		**20,127**	(49,305)	43,863
– Provision for social security contributions on employee share options		**(722,895)**	29,672	(1,446,019)
– Provision for deferred cash consideration	9	**179,000**	222,000	443,000
– Interest earned		**(137,014)**	(151,467)	(306,831)
– Finance Charges		**1,275,222**	1,005,253	1,917,649
– Modification loss on bank loan		**—**	—	730,037
– Gain on bargain purchase	4	**(3,680,053)**	—	—
Working capital adjustments:				
– (Increase) / decrease in trade and other receivables		**(1,483,344)**	720,819	804,306
– Increase / (decrease) in trade and other payables		**(5,619,217)**	1,137,082	1,603,828
– Tax received		**—**	—	8,152,085
Net cash flows from operating activities		**(27,633,350)**	(15,031,336)	(23,137,113)
Investing activities				
Purchase of property, plant and equipment		**—**	(19,917)	(35,536)
Purchase of license		**—**	—	—
Disposal of property, plant and equipment		**—**	1,084	2,166
Proceeds from sale of short-term investments		**12,463,487**	—	—
Conversion of short-term investments into cash and cash equivalents		**11,428,963**	—	—
Acquisition of subsidiary	4	**10,074,297**	—	—
Interest earned		**42,633**	125,838	284,928
Net cash flows received / (used) in investing activities		**34,009,380**	107,005	251,558
Financing activities				
Proceeds from issue of ordinary shares	8	**—**	150,228	273,064
Transaction costs on issue of shares		**(760,692)**	(7,511)	(7,511)
Proceeds from issue of bank loan		**—**	—	455,000
Transaction costs on bank loan		**—**	—	(920,859)
Proceeds from TAP agreement		**—**	—	78,445
Purchase of treasury shares		**(998,004)**	—	(306,838)
Interest paid on bank loan		**(864,509)**	(900,000)	(1,644,610)
Payment of lease liabilities		**(776,000)**	—	—
Net cash flows from financing activities		**(3,399,205)**	(757,283)	(2,073,309)
Net increase / (decrease) in cash and cash equivalents		**2,976,825**	(15,681,614)	(24,958,864)
Cash and cash equivalents at the beginning of the period		**25,041,945**	50,044,672	50,044,672
Effect of exchange rate changes on cash and cash equivalents		**270,734**	49,305	(43,863)
Cash and cash equivalents at the end of the period		**28,289,504**	34,412,363	25,041,945

Consolidated statement of changes in equity for the six months ended June 30, 2019

	Issued capital £	Share premium £	Other capital reserves £	Other reserves £	Own Shares	Accumulated losses £	Translation reserve	Total equity £
At January 1, 2018—Audited	**213,285**	**118,226,956**	**16,359,169**	**7,000,000**	**—**	**(79,315,920)**	**—**	**62,483,490**
Loss for the period	—	—	—	—	—	(16,987,545)	—	(16,987,545)
IFRS 9 restatement	—	—	—	—	—	123,866	—	123,866
Share-based payments—share options	—	—	1,136,916	—	—	—	—	1,136,916
Share-based payments - LTIPS	—	—	159,669	—	—	—	—	159,669
Share-based payments—deferred bonus shares	—	—	90,277	—	—	—	—	90,277
Issue of share capital on June 1, 2018 (Note 8)	150	150,078	—	—	—	—	—	150,227
Transaction costs on issuance of share capital (Note 8)	—	(7,511)	—	—	—	—	—	(7,511)
At June 30, 2018—Unaudited	**213,435**	**118,369,523**	**17,746,031**	**7,000,000**	**—**	**(96,179,599)**	**—**	**47,149,390**
Loss for the period	—	—	—	—	—	(15,041,195)	—	(15,041,195)
Share-based payments—share options	—	—	733,039	—	—	—	—	733,039
Share-based payments - LTIPS	—	—	159,669	—	—	—	—	159,669
Share-based payments—deferred bonus shares	—	—	(90,277)	—	—	—	—	(90,277)
Issue of share capital on August 3, 2018 on exercise of options (Note 8)	30	12,870	—	—	—	—	—	12,900
Issue of share capital on October 22, 2018 on exercise of options (Note 8)	256	109,680	—	—	—	—	—	109,936
Issue of warrants for TAP agreement	—	—	44,156	—	—	—	—	44,156
Purchase of treasury shares	—	—	—	—	(306,838)	—	—	(306,838)
At December 31, 2018—Audited	**213,721**	**118,492,073**	**18,592,618**	**7,000,000**	**(306,838)**	**(111,220,794)**	**—**	**32,770,780**
Loss for the period	—	—	—	—	—	(16,223,632)	—	(16,223,632)
Other comprehensive income	—	—	—	—	—	88,033	710,830	798,863
Share-based payments—share options	—	—	354,128	—	—	—	—	354,128
Share-based payments - LTIPS	—	—	138,673	—	—	—	—	138,673
Issue of share capital on April 23, 2019 for acquisition of OncoMed Pharmaceuticals Inc (Note 8)	74,350	—	40,818,128	—	—	—	—	40,892,478
Issue of share capital on conversion of loan note	3,213	2,363,790	—	—	—	—	—	2,367,003
Issue of share capital for Novartis bonus shares	2,595	1,588,983	(1,591,578)	—	—	—	—	—
Transaction costs on issuance of share capital (Note 8)	—	(760,692)	—	—	—	—	—	(760,692)
Equity element of convertible loan	—	—	(308,122)	—	—	—	—	(308,122)
Purchase of treasury shares	—	—	—	—	(998,004)	—	—	(998,004)
At June 30, 2019—Unaudited	**293,879**	**121,684,154**	**58,003,847**	**7,000,000**	**(1,304,842)**	**(127,356,393)**	**710,830**	**59,031,475**

Notes to the interim report

1. Corporate information

These financial statements are the unaudited interim consolidated financial statements of Mereo BioPharma Group plc and its subsidiaries (collectively, the “Group”) for the six months ended June 30, 2019 were authorised for issue by the Directors on September 13, 2019. Mereo BioPharma Group plc (the “Company” or the “parent”) is a public limited company incorporated and domiciled in the United Kingdom and whose shares are publicly traded on the AIM Market of the London Stock Exchange with a secondary listing of its American Depositary Receipts (ADR’s) on the Nasdaq Global Market.

On April 23, 2019 the Group completed the acquisition of OncoMed Pharmaceuticals, Inc. (“OncoMed”) a California-based and Nasdaq-listed company at which time OncoMed became a US subsidiary of Mereo. The registered office is located at Fourth Floor, 1 Cavendish Place, London W1G 0QF.

The Group is principally engaged in the research and development of novel pharmaceuticals.

2. Basis of preparation

The interim condensed consolidated financial statements for the six-month period ended June 30, 2019 have been prepared in accordance with International Accounting Standards (IAS) 34 *Interim Financial Reporting*. They do not include all the information required for a complete set of IFRS financial statements. However, selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in the Group since the most recent annual financial statements (December 31, 2018). For comparative purposes a consolidated balance sheet as at June 30, 2018 has also been presented.

The accounting policies adopted in the preparation of the interim condensed consolidated financial statements are consistent with those followed in the preparation of the Group’s consolidated financial statements for the year ended December 31, 2018, except for the new accounting polices described in Note 3 (Changes in accounting policies) below. The financial information is presented in Sterling.

These condensed interim financial statements are unaudited and do not constitute statutory accounts of the Group as defined in section 434 of the Companies Act 2006.

The financial information for the year ended December 31, 2018 has been extracted from the Group’s published financial statements for that year, and a copy of the statutory accounts for that financial year has been delivered to the Registrar of Companies. The auditors reported on those accounts and their report was unqualified, did not draw attention to any matters by way of emphasis and did not contain a statement under section 498(2) or (3) of the Companies Act 2006.

Segmental information

Management views the business as a single portfolio of product candidates. Only R&D expenses are monitored at a product candidate level; however, the Chief Operating Decision Maker (CODM) makes decisions over resource allocation at an overall portfolio level. The Group’s financing is managed and monitored on a consolidated basis. All non-current assets held by the Group are located in the U.K. and U.S.

The Group’s CODM is the executive management team (comprised of the Chief Executive Officer, Chief Financial Officer, Chief Medical Officer, General Counsel, the Head of Corporate Development and the Head of Patient Access and Commercial Planning) which manages the operating results of the business.

The operations of the Group are not prone to seasonal or cyclical variations.

Going Concern

These consolidated interim financial statements have been prepared on a going concern basis, which contemplates the realisation of assets and the payment of liabilities in the ordinary course of business. The Group incurred net losses of £16.2 million and £17.0 million for the periods ended 30 June 2019 and 30 June 2018 respectively. As at 30 June 2019, the Group had total cash resources[1] of £36.1 million and net current assets of £27.8 million.

As part of the going concern review, the Directors have considered the funding requirements of the Group through consideration of the Group's current business plan and the preparation of detailed cash flow forecasts. The going concern review prepared by the Directors extends through to December 2022 from the date of approval of these consolidated interim financial statements.

Under the current business plan and detailed cash flow forecasts, with ongoing R&D efforts focused on our rare disease products, setrusumab and alvelestat, we expect that our current on-hand cash resources will extend to the end of Q2 2020. Therefore, the Group requires additional external funding within the next 12 months to be able to continue as a going concern. Principally, this funding will be required to complete our current trials, fund our ongoing administrative costs and other general working capital and contractual financing requirements (see Note 7(b) below) and to commence our pivotal pediatric study and the manufacturing scale up activities for setrusumab as we progress with our development plans for that program.

Further funding to continue to develop our rare disease products is most likely to come from a mix of additional equity funding and partnering transactions with third parties, where discussions with a wide range of partners is already underway. The Directors remain confident of raising additional funding through either or both of these routes by mid-2020 which will provide the Group with additional funding to enable it to continue as a going concern. In terms of further equity finance, the Company has the existing approval to issue new shares on a non-pre-emptive basis and whilst it is not possible to predict market conditions and noting that 19.6% of our issued share capital is held by the Woodford Equity Income Fund, the Directors and its advisors believe sufficient progress is being made with our development programs to be able to complete an equity raise. In addition, the upcoming newsflow from the Phase 2b top-line data in adults for setrusumab in Q4 2019 should provide an enhanced opportunity to raise further equity finance if the data is positive. Because the additional finance that may result from partnering and/or further equity funding is not committed at the date of approval of these consolidated interim financial statements, these circumstances represent a material uncertainty as to the Group's ability to continue as a going concern.

These consolidated interim financial statements do not include the adjustments that would arise if the Group were unable to continue as a going concern. Should the Group be unable to obtain further finance such that the going concern basis of preparation were no longer appropriate, adjustments would be required which would include reducing the balance sheet values of assets to their recoverable amounts and to provide for further liabilities that might arise.

3. Changes in accounting policies

Except as noted below, these interim consolidated financial statements have been prepared using the same accounting policies and methods of computation as compared with the most recent annual financial statements.

1 Cash resources is defined as the aggregate of cash and short-term deposits and short-term investments

On January 1, 2019 the Group adopted IFRS 16 (Leases). The nature and effect of the changes from implementing IFRS 16 (Leases) most relevant to the Group's financial statements are given below.

Where relevant the Group has also implemented other amendments to existing standards and interpretations which became effective in the six-month period ended June 30, 2019. This included IFRIC 23 (Uncertainty over Income Tax Treatments). None of these amendments had a material impact on the Group's overall result and financial position.

3.1 IFRS 16 Leases

General impact of application of IFRS 16

In the current year, the Group, for the first time, has applied IFRS 16 Leases. The date of initial application of IFRS 16 for the Group is January 1, 2019.

IFRS 16 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to the lessee accounting by removing the distinction between operating and finance lease, requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged.

The Group is lessee under a number of property and equipment leases, and also acts as the sublessor of two sublease agreements under one of its property leases. Details of the Group's accounting policies under IFRS 16 are set out below.

Significant judgements and estimates applied in the adoption of IFRS 16 included determining the lease term for those leases with termination or extension options, the classification of subleases as operating or finance subleases, and the incremental borrowing rate where the rate implicit in a lease could not be readily determined.

Approach to transition

The Group has applied IFRS 16 using the modified retrospective approach, without restatement of the comparative information. In respect of those leases the Group previously treated as operating leases, the Group has elected to measure its right of use assets using the approach set out in IFRS 16.C8(b)(ii). Under IFRS 16.C8(b)(ii) right of use assets are set equal to the lease liability, adjusted for prepaid or accrued lease payments.

The Group's weighted average incremental borrowing rate applied to lease liabilities as at January 1, 2019 is 15%.

Definition of a lease

Previously, the Group determined at contract inception whether an arrangement was or contained a lease under IFRC 4 *Determining Whether an Arrangement contains a Lease.* The Group now assesses whether a contract is or contains a lease based on the new definition of a lease under IFRS 16. Under IFRS 16, a contract is or contains a lease, if the contract conveys a right to control the use of an identified asset in exchange for consideration.

On transition to IFRS 16, the Group elected to apply the practical expedient to grandfather the assessment of which transactions are leases. It applied IFRS 16 only to contracts that were previously not identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were

not reassessed. In preparation for the first-time application of IFRS 16, the Group has carried out an implementation project. The new definition in IFRS 16 will not significantly change the scope of contracts that meet the definition of a lease for the Group.

At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

Practical expedients adopted on transition

Certain practical expedients permitted by IFRS 16 are used by the Group, notably:

i) To not reassess upon transition whether an existing contract contains a lease (grandfather the previous assessment of whether a transaction was a lease under IAS 17 or IFRIC 4). The definition of a lease under IFRS 16 has been applied only to contracts entered into or changed on or after 1 January 2019;

ii) The recognition exemptions for short-term leases (less than 12 months of lease term) and leases of low-value assets; and

iii) Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

Impact on lessee accounting

Former operating leases

Applying IFRS 16, for all leases, the Group:

i) Recognises right-of-use assets and lease liabilities in the consolidated statement of financial position, initially measured at the present value of future lease payments;

ii) Recognises depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit or loss; and

iii) Separates the total amount of cash paid into a principal portion (presented within financing activities) and interest (presented within operating activities) in the consolidated statement of cash flows.

Lease incentives (e.g. rent-free periods) are recognised as part of the measurement of the right-of-use assets and lease liabilities whereas under IAS 17 they resulted in the recognition of a lease incentive liability, amortised as a reduction of rental expenses on a straight-line basis.

Under IFRS 16, right-of-use assets will be tested for impairment in accordance with IAS 36 Impairment of Assets. This replaces the previous requirement to recognise a provision for onerous lease contracts.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as those with a value less than £5,000), the Group has opted to recognise a lease expense on a straight-line basis as permitted by IFRS 16. This expense is presented within Other operating expenses in the consolidated income statement.

As at December 31, 2018, the Group did not hold any finance leases.

Impact on Lessor Accounting

IFRS 16 does not change substantially how a lessor accounts for leases. Under IFRS 16, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently. However, IFRS 16 has changed and expanded the disclosures required, in particular regarding how a lessor manages the risks arising from its residual interest in leased assets.

Under IFRS 16, an intermediate lessor accounts for the head lease and the sublease as two separate contracts. The intermediate lessor is required to classify the sublease as a finance or operating lease by reference to the right-of-use asset arising from the head lease (and not by reference to the underlying asset as was the case under IAS 17).

As the Group continues to account for its subleases as operating leases, there has been no material impact as a result of this change.

Financial impact

The application of IFRS 16 to leases previously classified as operating leases under IAS 17 resulted in the recognition of right-of-use assets and lease liabilities. Prepaid rental previously recognised as assets and accrued rental previously recognised as liabilities have been derecognised and factored into the measurement of the right-of-use assets.

The Group has chosen to use the table below to set out the adjustments recognised at the date of initial application of IFRS 16.

	As previously reported at December 31, 2018 £	Impact of IFRS 16 £	As restated at January 1, 2019 £
Non-current assets			
Property, plant and equipment	148,935	2,551,810	**2,700,745**
Prepayments and other	1,066,932	(50,253)	**1,016,679**
Total impact on assets		**2,051,557**	
Current liabilities			
Trade and other payables	4,570,307	—	**4,570,307**
Lease liabilities	—	606,525	**606,525**
Non-current liabilities			
Lease liabilities	—	1,927,122	**1,927,122**
Accruals	4,437,321	(32,090)	**4,405,231**
Total impact on liabilities		**2,051,557**	
Total impact on retained earnings		—	

Of the total right-of-use assets of £2,551,810 recognised at January 1, 2019, £1,236,613 related to leases of building and £1,315,197 to leases of equipment. On April 23, 2019, the Group acquired OncoMed Pharmaceuticals Inc. (“OncoMed”) (see Note 4). On acquisition, the Group recognised a right-of-use asset of £10,755,475 relating to an acquired property lease.

The table below presents a reconciliation from operating lease commitments disclosed at December 31, 2018 to lease liabilities recognised at January 1, 2019.

	£
Operating lease commitments disclosed under IAS 17 at December 31, 2018	535,665
Effect of discounting	(944,186)
Reassessment of lease term under IFRS 16	2,942,168
Lease liabilities recognised at January 1, 2019	**2,533,647**

In terms of the income statement impact, the application of IFRS 16 resulted in a decrease in other operating expenses and an increase in depreciation and interest expense compared to IAS 17.

During the six months ended June 30, 2019, in relation to leases under IFRS 16 the Group recognised the following amounts in the consolidated income statement:

	Six months to June 30, 2019 £
Depreciation	552,017
Interest expense	427,943
Foreign exchange	3,222

The amounts recognised in the consolidated income statement relating to short-term leases and low-value leases, where the relevant practical expedients have been applied, is not significant.

4. Acquisition of subsidiary

On April 23, 2019, the Group obtained a 100% controlling interest in OncoMed Pharmaceuticals Inc. (“OncoMed”), a US company based in Redwood City, California, that had been publicly listed on NASDAQ.

OncoMed is a clinical-stage biopharmaceutical company focused on discovering and developing novel therapeutics that address the fundamental biology driving cancer’s growth, resistance, recurrence and metastasis. OncoMed was acquired in order to broaden the Group’s asset base, strengthen its cash position and obtain a NASDAQ listing to diversify international shareholder base of the combined group.

The acquisition has been accounted for using the acquisition method of accounting. A provisional assessment has been made of the fair value to the Group of the assets and liabilities acquired along with the contingent consideration as they are based on preliminary information received at this point and therefore subject to adjustment through December 31, 2019.

Acquisition of subsidiary—2019: net assets acquired

	£
Cash and short-term deposits	10,074,297
Short-term investments	29,019,206
Other receivables	154,529
Prepayments	1,696,933
Property, plant and equipment	81,985
Right-of-use assets	10,755,475
Identifiable intangible assets	12,693,479
Other liabilities	(9,214,785)
Lease liabilities	(10,688,588)
Net identifiable assets	**44,572,531**
Bargain purchase	(3,680,053)
Total consideration	**40,892,478**
Satisfied by:	
Issuance of own-equity instruments (24,783,320 ordinary shares)	**40,892,478**
Contingent consideration	—
Total consideration transferred	**40,892,478**
Net cash inflow arising on acquisition	
Cash consideration	—
Less: cash and short-term deposits acquired	**(10,074,297)**
	(10,074,297)

The fair value of the 24,783,320 ordinary shares issued as part of the consideration paid for OncoMed (£40,892,478) was measured on the basis of the Group's quoted share price as at the date of acquisition (i.e. April 23, 2019).

As the Group acquired OncoMed for an amount less than the fair market value of the net assets acquired on the date of acquisition, a gain on bargain purchase of £3,680,053 was realised (recognised net against the acquisition transaction costs within the consolidated statement of comprehensive loss). This was attributable to the following factors:

(i) Subject to a working capital adjustment, the immediately pre-closing proportion of shares in Mereo due to be issued to OncoMed's shareholders as equity consideration was agreed in December 2018 based on the Group's 90-day volume-weighted average price ending on December 4, 2018 (the "reference share price"). Following a movement downward in the Group's quoted share price on the completion date (23 April 2019) in comparison with the reference share price this reduced the fair value of the consideration paid. The impact in the reduction in the total consideration paid was partly offset by; and

(ii) In the period from announcement of the deal and the date of acquisition (April 23, 2019), a period of approximately five months, OncoMed continued to generate losses reflecting continued R&D activity together with expenditure on its overheads. This had the effect of reducing net assets acquired.

The contingent consideration arrangement requires the Group to make additional cash payments and issue new American Depositary Shares ("ADSs") if specified milestones are achieved within agreed time periods.

Additional cash consideration becomes payable, if, within eighteen months following the completion date, the Group enters into eligible partnership or investment transactions in relation to OncoMed's navicixizumab product and, within five years of the completion date, the Group receives certain eligible cash milestone payment ("NAVI Milestone"). The potential undiscounted amount of the Navi Milestone payment is subject to an aggregate cap of approximately $80 million.

Contingent consideration in the form of new ADSs was also due in the event that Celgene Corporation ("Celgene") exercised its option in relation to OncoMed's etigilimab product. As announced in June 2019, Celgene did not exercise its option and therefore the Group will not be required to issue any ADSs under this contingent consideration arrangement.

After consideration of the significant inherent uncertainties related to the Navi milestones, the preliminary fair value of the CVRs as of the completion date was estimated to be minimal (i.e. approximates £Nil). In determining that the preliminary CVR fair value approximated nil, the following information and factors were considered:

(i) The likelihood of Celgene exercising the exclusive option granted by OncoMed to Celgene in relation to OncoMed's etigilimab product, particularly given Bristol-Myers Squibb's proposed acquisition of Celgene;

(ii) The uncertain outcomes of current clinical studies;

(iii) The level of uncertainty regarding the availability of future funding partners;

(iv) The level of uncertainty relating to the success of future development of such products; as well as

(v) The dependency of the CVR milestones on the occurrence of events that are outside of the control of the Group.

The fair value of the financial assets includes receivables from the landlord under OncoMed's office lease arrangement in relation to tenant improvements with a fair value and a gross contractual value of £154,529. It is estimated at acquisition date that all contractual cash flows are collectable in full. Short-term investments acquired with OncoMed were treasury bills (recognised at fair value through OCI).

Acquisition-related-costs (recognised net against the gain on bargain purchase within the consolidated statement of comprehensive loss) amounted to £2,644,674.

OncoMed contributed £nil revenue and £2,283,341 to the Group's loss for the period between the date of acquisition and the balance sheet date.

If the acquisition of OncoMed had been completed on the first day of the financial year, group revenues for the period would have been £4,255,178 and the Group's loss would have been £24,340,108. This information is provided for illustrative purposes only and is not necessarily indicative of the results that the Group would have occurred had OncoMed actually been acquired at the beginning of the year, or indicative of future results of the Group.

5. Property, plant and equipment

On initial application of IFRS 16 the Group recognised right-of-use assets of £2,551,810. Subsequently, following the acquisition of OncoMed (Note 4), the Group recognised a right-of-use asset of £10,755,475 relating to an acquired property lease.

Further details on the initial application of IFRS 16 are presented in Note 3. The Group has decided to present right-of-use assets within property, plant and equipment.

6. Intangible assets

At December 31, 2018—Audited	Acquired development programs £
Cost	33,005,229
Accumulated revision to estimated value	(373,000)
Net book amount	**32,632,229**
Six months ended June 30, 2019—Unaudited	
At January 1, 2019	32,632,229
Acquisition of subsidiary (Note 4)	12,693,479
Revision to estimated value	(169,000)
At June 30, 2019	45,156,708
At June 30, 2019—Unaudited	
Cost	45,698,708
Accumulated revision to estimated value	(542,000)
Net book amount	**45,156,708**

The present value of the provision for deferred cash consideration relating to the agreement with AstraZeneca was reviewed at June 30, 2019 (see Note 9). The decrease in present value due to changes in timelines and probability of contractual milestones being achieved was £169,000 (2018: £373,000) and is recognized as a reduction of the intangible asset in line with our accounting policies.

The intangible asset acquired with the acquisition of subsidiary of £12,693,479 (2018: £nil) is further explained within Note 4.

During the period the Group did not revise the value of any other intangible assets (2018: £nil). As the intangible assets remain under development, no amortisation charge has been recognised (2018: £nil).

7. Interest bearing loans and borrowings

	Six months ended June 30, 2019 Unaudited £	Six months ended June 31, 2018 Unaudited £	Year ended December 31, 2018 Audited £
Convertible loan notes (see Note 7a)	**—**	1,943,235	2,038,881
Bank loan (see Note 7b)	**19,732,236**	18,961,887	19,445,756
At end of year/period	**19,732,236**	20,905,122	21,484,637
Current	**8,011,237**	5,644,369	6,837,884
Non-current	**11,720,999**	15,260,753	14,646,753

7a. Convertible loan note

On June 21, 2019 Novartis converted the remaining balance of principal and interest of £2,367,004 of loan Notes (“Novartis Notes”) into 1,071,042 ordinary shares at the fixed conversion

price of £2.21 per share. This has been recorded as a £2,058,882 reduction in interest bearing loans and borrowings and a reduction in other capital reserves of £308,122. Under the terms of the Notes, Novartis also received 864,988 bonus shares.

The value of the equity component of the Notes at December 31, 2018 was calculated as £308,122.

7b. Bank loan

On April 23, 2019, following completion of the acquisition of OncoMed, the Group agreed an amendment to the terms of its bank loan with the lenders. The new terms extended the interest-only period to December 31, 2019 followed by a 15-month capital and interest repayment period. The Group has undertaken an assessment under IFRS 9 and believe that the change in terms should not be accounted for as a modification under IFRS 9, but instead as a change in expected cash flows. The cash flows under the bank loan were revised from May 1, 2019. The gain as a result of the changes in the estimated cash flows is recognised as a true up in the total finance cost (i.e. together with the interest expense). Management estimated the revised carrying value of the loan as of May 1, 2019 to be £19,942,551 by discounting the revised cash flows at the original discount rate of 18%. The difference between the previous and revised carrying value of the loan as at May 1, 2019 in the amount of £456,430 is recognised as a gain in profit and loss as required under IFRS 9. Following the re-estimation, the financial liability continues to be accounted for at amortised cost using the original effective interest rate.

On May 3, 2019, under the terms of the loan agreement, Mereo issued 321,444 additional warrants (see Note 10) to its lenders giving them the right to subscribe for ordinary shares at an exercise price of £2.95. The fair value of the additional warrants as of their grant date (May 3, 2019) was £131,150.

The total carrying value of the loan at June 30, 2019 was £19,732,236 (2018: £18,961,887). £8,011,237 is a current liability and £11,720,999 is a non-current liability. A total of £742,909 (2018: £186,963) of non-cash interest has been charged to the statement of comprehensive loss in the period.

8. Issued capital and reserves

	Six months to June 30, 2019 Unaudited £	Six months to June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
Ordinary share capital			
Balance at beginning of year/period	**213,721**	213,285	213,285
Issuances in the period	**80,158**	150	436
Nominal share capital at end of year/period	**293,879**	213,435	213,721

Ordinary shares issued and fully paid	
At January 1, 2019	**71,240,272**
Issued on April 23, 2019 for OncoMed acquisition	**24,783,320**
Issued on June 21, 2019 for conversion of loan note	**1,936,030**
At June 30, 2019	**97,959,622**
Nominal value at June 30, 2019 (£)	**0.003**
Issued capital at June 30, 2019 (£)	**293,879**

Ordinary shares issued and fully paid	
At January 1, 2018	71,094,974
Issued on June 1, 2018 for financing round	50,076
At June 30, 2018	71,145,050
Nominal value at June 30, 2018 (£)	0.003
Issued capital at June 30, 2018 (£)	213,435

Ordinary shares issued and fully paid	
At July 1, 2018	71,145,050
Issued on August 3, 2018 for exercise of share options	10,000
Issued on October 22, 2018 for exercise of share options	85,222
At December 31, 2018	71,240,272
Nominal value at December 31, 2018 (£)	0.003
Issued capital at December 31, 2018 (£)	213,721

Since January 1, 2019, the following alterations to the Company's share capital have been made:

i) On April 23, 2019 the Company issued and allotted 24,783,320 ordinary shares of £0.003 in nominal value in the capital of the Company as consideration for the acquisition of OncoMed. The fair value of the ordinary shares was measured as £1.65; and

ii) On June 21, 2019 Novartis converted £2,367,004 of loan notes dated June 3, 2016 into 1,071,042 ordinary shares of £0.003 in nominal value in the capital of the Company at the fixed conversion price of £2.21 per share. Under the terms of the notes, Novartis also received 864,988 bonus shares.

	£
Share premium	
At January 1, 2019—Audited	118,492,073
Issued on June 21, 2019 for conversion of loan note	3,952,773
Transaction costs for issued share capital	(760,692)
At June 30, 2019—Unaudited	**121,684,154**

	£
Share premium	
At January 1, 2018—Audited	118,226,956
Issued on June 1, 2018 for placing for cash	150,078
Transaction costs for issued share capital	(7,511)
At June 30, 2018—Unaudited	**118,369,523**
Issued on August 3, 2018 for exercise of share options	12,870
Issued on October 22, 2018 for exercise of share options	109,680
At December 31, 2018—Audited	**118,492,073**

Other capital reserves

	Shares to be issued £	Share-based payments £	Equity component of convertible loan £	Warrants issued for TAP funding £	Merger reserve £	Total £
At January 1, 2019—Audited	1,591,578	16,648,762	308,122	44,156	—	18,592,618
Share-based payments expense during the period	—	492,801	—	—	—	492,801
Shares issued	(1,591,578)	—	—	—	—	(1,591,578)
Equity component of convertible loan instrument	—	—	(308,122)	—	—	(308,122)
Issue of share capital on April 23, 2019 for acquisition of OncoMed (Note 8)	—	—	—	—	40,818,128	40,818,128
At June 30, 2019—Unaudited	**—**	**17,141,563**	**—**	**44,156**	**40,818,128**	**58,003,847**

	Shares to be issued £	Share-based payments £	Equity component of convertible loan £	Warrants issued for TAP funding £	Total £
At January 1, 2018—Audited	1,591,578	14,459,469	308,122	—	16,359,169
Share-based payments expense during the period	—	1,386,862	—	—	1,386,862
At June 30, 2018—Unaudited	**1,591,578**	**15,846,331**	**308,122**	**—**	**17,746,031**
Share-based payments expense during the period	—	915,473	—	—	915,473
Share-based payments release for exercise of options	—	(113,042)	—	—	(113,042)
Warrants issued for TAP funding	—	—	—	44,156	44,156
At December 31, 2018—Audited	**1,591,578**	**16,648,762**	**308,122**	**44,156**	**18,592,618**

Shares to be issued

At January 1, 2017, £2,674,477 representing a maximum of 1,453,520 shares at £1.84 were remaining to be issued to Novartis pro rata to their percentage shareholding as and when the Company issues further ordinary shares.

Of the 1,221,361 ordinary shares issued on April 26, 2017, 588,532 shares were issued to Novartis as fully paid up bonus shares (for £nil consideration), the number of which was calculated to maintain its shareholding at 19.5%. The fair value of these shares was £1.84 per share. At December 31, 2018, £1,591,578 representing a maximum of 864,988 shares at £1.84 were remaining to be issued to Novartis pro rata to their percentage shareholding as and when the Company issues further ordinary shares

Of the 1,936,030 ordinary shares issued to Novartis on June 21, 2019, the remaining 864,988 shares were issued to Novartis as fully paid up bonus shares (for £nil consideration). The fair value of these shares was £1.84 per share.

Share-based payments

The Group has a share option scheme under which options to subscribe for the Group's shares have been granted to certain Executives, Non-Executive Directors and employees.

The share-based payment reserve is used to recognise:

i. the value of equity-settled share-based payments provided to employees, including key management personnel, as part of their remuneration; and

ii. deferred equity consideration.

The total charge for the six months to June 30, 2019 in respect of all share option schemes was 492,801 (June 30, 2018: £1,386,862).

On May 20, 2019, the Company granted 441,700 market value options over ADS under the Mereo 2019 Equity Incentive Plan to certain executives and other employees. The weighted average fair value of options granted was £0.61. The exercise price is $5.40. On the same date, the Company granted 38,500 market value options over ADS under the Mereo 2019 NED Equity Incentive Plan to certain non-executives. The weighted average fair value of options granted was £0.61. The exercise price is $5.40.

Equity component of convertible loan instrument

The convertible loan Notes issued to Novartis are a compound instrument consisting of a liability and an equity component. The value of the equity component (cost of the conversion option) as at June 30, 2019 is £nil (June 30, 2018: £308,122). The value of the equity component (cost of the conversion option) as at December 31, 2018 was £308,122.

Merger reserve

On April 23, 2019, the Group obtained a 100% controlling interest in OncoMed (Note 4).

The consideration paid to acquire OncoMed was 24,783,320 ordinary shares with a fair value of £40,892,478 based on the Group's quoted share price as at the date of acquisition. The nominal value of the issued capital was £74,350 with the excess, £40,818,128, classified within other capital reserves as a 'Merger reserve'.

9. Provisions

	Six months to June 30, 2019 Unaudited £	Six months to June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
Social security contributions on share options	119,472	2,318,058	842,367
Provision for deferred cash consideration	2,141,000	1,968,000	2,131,000
At end of year/period	**2,260,472**	4,286,058	2,973,367
Current	**333,556**	293,000	332,014
Non-current	**1,926,916**	3,993,058	2,641,353

Social security contributions on share options	Six months to June 30, 2019 Unaudited £	Six months to June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
At beginning of year/period	842,367	2,288,386	2,288,386
Arising during the year/period	—	29,672	—
Released during the year/period	(722,895)	—	(1,446,019)
At end of year/period	**119,472**	2,318,058	842,367
Current	—	—	—
Non-current	**119,472**	2,318,058	842,367

The provision for social security contributions on share options is calculated based on the number of options outstanding at the reporting date that are expected to be exercised. The provision is based on the estimated gain arising on exercise of the share options, using the best estimate of the market price at the balance sheet date. Since the Directors assume the options will be held for their full contractual life of ten years, the liability has been classified as non-current. The provision has been discounted.

Provision for deferred cash consideration	Six months to June 30, 2019 Unaudited £	Six months to June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
At beginning of year/period	2,131,000	2,061,000	2,061,000
Arising during the year/period	—	—	—
Increase in provision due to the unwinding of the time value of money	179,000	222,000	443,000
Decrease in provision due to a change in estimates relating to timelines and probabilities of contractual milestones being achieved (see Note 6)	(169,000)	(315,000)	(373,000)
At end of year/period	**2,141,000**	1,968,000	2,131,000
Current	**333,556**	293,000	332,014
Non-current	**1,807,444**	1,675,000	1,798,986

The deferred cash consideration is the estimate of the quantifiable but not certain future cash payment obligations due to AstraZeneca for the acquisition of certain assets. This liability is calculated as the risk adjusted net present value of future cash payments to be made by the Group. The payments are dependent on reaching certain milestones based on the commencement and outcome of

clinical trials. The likelihood of achieving such milestones is reviewed at the balance sheet date and increased or decreased as appropriate (see Note 6).

10. Warrant liability

	Six months to June 30, 2019 Unaudited £	Six months to June 30, 2018 Unaudited £	Year ended December 31, 2018 Audited £
At beginning of year/period	**1,005,613**	1,346,484	1,346,484
Arising during the year/period	**131,150**	—	375,343
Movement during the year/period	**(911,290)**	188,480	(716,214)
At end of year/period	**225,473**	1,534,964	1,005,613

On May 3, 2019 the Group issued 321,444 warrants to lenders of the bank loan facility (see Note 7b). These warrants will be capable of exercise until October 1, 2028 at an exercise price of £2.95.

As at June 30, 2019 a total of 1,243,908 warrants are outstanding, held by lenders of the bank loan facility, which is equivalent to 1.27% of the ordinary share capital of the Company.

The terms of the warrant instrument allow for a cashless exercise. In line with IAS 32 (Financial Instruments: Presentation), the future number of shares to be issued to the warrant-holder under a cashless exercise can only be determined at that future date. At each balance sheet date, the fair value of the warrants will be assessed using the Black-Scholes model considering appropriate amendments to inputs in respect of volatility and remaining expected life of the warrants.

The following table lists the weighted average inputs to the models used for the fair value of warrants:

	Six months to June 30, 2019 Unaudited	Six months to June 30, 2018 Unaudited	Year ended December 31, 2018 Audited
Expected volatility (%)	**66**	67	65
Risk-free interest rate (%)	**1.26**	1.38	1.56
Expected life of share options (years)	**9.5**	9.3	10
Market price of ordinary shares (£)	**0.83**	3.12	2.31
Model used	Black Scholes	Black Scholes	Black Scholes

The fair value of the warrants at grant was £1,292,011. At June 30, 2019 it was £225,473 (2018: £1,534,964) and at December 31, 2018 it was £1,005,613.

Since there is no historical data in relation to the expected life of the warrants the contractual life of the options was used in calculating the expense for the year.

Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective year equal to the expected life of the warrants.

11. Related party disclosures

Transactions between the parent and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Novartis holds 15,703,871 shares in the Company at June 30, 2019 (June 30, 2018 and December 31, 2018: 13,767,841). Novartis held £2,065,011 principal value of loan Notes at June 30, 2018 and December 31, 2018.

On June 21, 2019 Novartis converted the remaining balance of principal and interest of £2,367,004 of loan Notes into 1,071,042 ordinary shares at the fixed conversion price of £2.21 per share (see Note 7a). Under the terms of the Notes, Novartis also received 864,988 bonus shares.

Employee benefit trust

In 2016 the Company set up an Employee benefit trust for the purposes of buying and selling shares on the employees' behalf.

A total of £1,000,000of funding was paid into the Trust by the Company during the period to June 30, 2019 (2018: nil). A total of £325,000 of funding was paid into the Trust by the Company during the year ended December 31, 2018.

A total of 1,074,274 shares were purchased by the Trust during the period to June 30, 2019 (2018: nil). A total of 163,000 shares were purchased by the Trust during the year ended December 31, 2018.

As at June 30, 2019 a cash balance of £21,762 (2018: £3,600) was held by the Trust. As at December 31, 2018 a cash balance of £21,762 was held by the Trust.

12. Events after the reporting period

On July 23, 2019, the Company granted 215,500 market value options over ADS under the Mereo 2019 Equity Incentive Plan to certain executives and other employees at an exercise price of $3.00 per ADS.

On July 23, 2019, the Company granted 38,500 market value options over ADS under the Mereo 2019 NED Equity Incentive Plan to certain non-executives at an exercise price of $3.00 per ADS.

On August 1, 2019, the Company granted 50,000 market value options over ADS under the Mereo 2019 Equity Incentive Plan to certain employees at an exercise price of $2.60 per ADS.

On August 2, 2019, the Company granted 6,000 market value options over ADS under the Mereo 2019 Equity Incentive Plan to certain employees at an exercise price of $2.74 per ADS.

On August 6, 2019, OncoMed received a tax refund in respect of Alternative Minimum Tax ("AMT") of $1,303,920 from the U.S. Internal Revenue Service ("IRS").

Report of Independent Registered Public Accounting Firm

The Shareholders and Board of Directors of Mereo BioPharma Group plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mereo BioPharma Group plc (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive loss, changes in equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform an audit of the Company's internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2015
Reading, United Kingdom
April 29, 2019

Consolidated statement of comprehensive loss
for the years ended December 31, 2016, 2017 and 2018

	Notes	Year ended December 31, 2016	2017	2018
			(in £)	
Research and development expenses		(24,562,502)	(34,606,649)	**(22,703,553)**
Administrative expenses		(11,616,816)	(10,697,194)	**(12,504,887)**
Operating loss		(36,179,318)	(45,303,843)	**(35,208,440)**
Finance income	7	374,906	826,855	**306,831**
Finance charge	7	(179,765)	(1,089,925)	**(2,360,648)**
Net foreign exchange gain/(loss)		2,262,626	(1,384,225)	**(43,863)**
Loss before tax		(33,721,551)	(46,951,138)	**(37,306,120)**
Taxation	9	5,331,271	8,152,084	**5,277,380**
Loss attributable to equity holders of the parent		(28,390,280)	(38,799,054)	**(32,028,740)**
Other comprehensive income for the year, net of tax		—	—	**—**
Total comprehensive loss for the year, net of tax and attributable to the equity holders of the parent		(28,390,280)	(38,799,054)	**(32,028,740)**
Basic and diluted loss per share	10	(0.63)	(0.56)	**(0.45)**

The accompanying notes form an integral part of these consolidated financial statements.

Consolidated balance sheet
as at December 31, 2017 and 2018

	Notes	Year Ended December 31, 2017	2018
		(in £)	
Assets			
Non-current assets			
Property, plant and equipment	11	153,361	**148,934**
Intangible assets	12	33,005,229	**32,632,229**
		33,158,590	**32,781,164**
Current assets			
Prepayments		1,970,781	**1,066,932**
R&D tax credits	9	8,152,084	**5,277,380**
Other receivables	14	509,350	**608,893**
Short-term investments	16	2,500,000	**2,500,000**
Cash and short-term deposits	15	50,044,672	**25,041,945**
		63,176,887	**34,495,150**
Total assets		96,335,477	**67,276,314**
Equity and liabilities			
Equity			
Issued capital	17	213,285	**213,721**
Share premium	17	118,226,956	**118,492,073**
Other capital reserves	17	16,359,169	**18,592,618**
Employee Benefit Trust shares	27	—	**(306,838)**
Other reserves	17	7,000,000	**7,000,000**
Accumulated loss		(79,315,920)	**(111,220,794)**
Total equity		62,483,490	**32,770,780**
Non-current liabilities			
Provisions	19	4,075,386	**2,641,353**
Interest-bearing loans and borrowings	18	18,812,511	**14,646,753**
Warrant liability	20	1,346,484	**1,005,613**
Other liabilities	21	—	**34,289**
		24,234,381	**18,328,008**
Current liabilities			
Trade and other payables	22	3,024,026	**4,570,307**
Accruals		4,379,774	**4,437,321**
Provisions	19	274,000	**332,014**
Interest-bearing loans and borrowings	18	1,939,806	**6,837,884**
		9,617,606	**16,177,526**
Total liabilities		33,851,987	**34,505,534**
Total equity and liabilities		96,335,477	**67,276,314**

The accompanying notes form an integral part of these consolidated financial statements.

Consolidated statement of cash flows
for the years ended December 31, 2016, 2017 and 2018

	Notes	Year Ended December 31, 2016	2017	2018
			(in £)	
Operating activities				
Loss before tax		(33,721,551)	(46,951,138)	**(37,306,120)**
Adjustments to reconcile loss before tax to net cash flows:				
Depreciation of property, plant and equipment	11	32,940	36,076	**37,796**
Share-based payment expense	25	6,494,018	3,651,898	**2,189,293**
Net foreign exchange loss		(2,262,626)	1,384,225	**43,863**
Provision for social security contributions on employee share options		1,031,109	1,115,966	**(1,446,019)**
Provision for deferred cash consideration		(374,906)	—	**443,000**
Interest earned	7	—	(826,855)	**(306,831)**
Finance charges	7	179,765	1,089,925	**1,917,649**
Modification loss on bank loan	18b	—	—	**730,037**
Working capital adjustments:				
(Decrease)/Increase in receivables		(1,219,202)	(839,751)	**804,306**
Increase in payables		(768,402)	3,860,412	**1,603,828**
Tax received		946,681	5,331,271	**8,152,085**
Net cash flows from operating activities		(29,662,174)	(32,147,971)	**(23,137,113)**
Investing activities				
Purchase of property, plant and equipment	11	(3,467)	(15,568)	**(35,536)**
Purchase of license	12	—	(2,280,000)	**—**
Disposal of property, plant and equipment	11	1,175	—	**2,166**
Short-term investments	16	—	(2,500,000)	**—**
Interest earned		374,906	1,051,620	**284,928**
Net cash flows from (used in) investing activities		372,614	(3,743,948)	**251,558**
Financing activities				
Proceeds from issue of ordinary shares	17	67,888,820	15,000,000	**273,064**
Transaction costs on issue of shares	17	(2,995,864)	(729,632)	**(7,511)**
Proceeds from issue of convertible loan		3,463,563	—	**—**
Proceeds from issue of bank loan	18b	—	20,000,000	**455,000**
Transaction costs on bank loan		—	(200,000)	**(920,859)**
Interest paid on bank loan		—	(327,123)	**(1,644,610)**
Proceeds from TAP agreement	21	—	—	**78,445**
Purchase of treasury shares	27	—	—	**(306,838)**
Net cash flows from (used in) financing activities		68,356,519	33,743,245	**(2,073,309)**
Net (decrease) in cash and cash equivalents		39,066,959	(2,148,674)	**(24,958,864)**
Cash and cash equivalents at January 1		12,247,986	53,577,571	**50,044,672**
Effect of exchange rate changes on cash and cash equivalents		2,262,626	(1,384,225)	**(43,863)**
Cash and cash equivalents at December 31	15	53,577,571	50,044,672	**25,041,945**

The accompanying notes form an integral part of these consolidated financial statements.

Consolidated statement of changes in equity
for the years ended December 31, 2016, 2017 and 2018

	Issued capital	Share premium	Other capital reserves	Employee Benefit Trust	Other reserves	Accumulated losses	Total equity
				(in £)			
At January 1, 2016	213,285	118,226,956	16,359,169	—	7,000,000	(79,315,920)	62,483,490
Total comprehensive loss for the year	—	—	—	—	—	(28,390,280)	(28,390,280)
Issue of share capital (Note 17)	107,709	67,781,112	—	—	—	—	67,888,821
Share-based payments—share options (Note 25)	—	—	6,185,067	—	—	—	6,185,067
Share-based payments—LTIPs (Note 25)	—	—	133,601	—	—	—	133,601
Share-based payments—deferred bonus shares (Note 25)	—	—	175,350	—	—	—	175,350
Issue of share capital (Note 17)	26,092	15,977,271	(16,003,363)	—	—	—	—
Equity element of convertible loan (Note 18a)	—	—	516,802	—	—	—	516,802
Share capital reduction (Note 17)	—	(7,000,000)	—	—	7,000,000	—	—
Transaction costs on issuance of share capital (Note 17)	—	(2,995,864)	—	—	—	—	(2,995,864)
At December 31, 2016	193,022	99,975,399	12,667,562	—	7,000,000	(40,579,241)	79,256,742
Loss for the year to December 31, 2017	—	—	—	—	—	(38,799,054)	(38,799,054)
Share-based payments—share options (Note 25)	—	—	3,027,963	—	—	—	3,027,963
Share-based payments—LTIPs (Note 25)	—	—	298,287	—	—	—	298,287
Share-based payments—deferred bonus shares (Note 25)	—	—	325,648	—	—	—	325,648
Share-based payments—deferred equity consideration (Note 25)	—	—	1,331,288	—	—	—	1,331,288
Issue of share capital on April 4, 2017 (Note 17)	15,125	14,984,875	—	—	—	—	15,000,000
Issue of share capital on conversion of loan note (Note 17)	1,899	1,396,654	—	—	—	—	1,398,553
Issue of share capital for Novartis bonus shares (Note 17)	1,766	1,081,133	(1,082,899)	—	—	—	—
Equity element of convertible loan (Note 18a)	—	—	(208,680)	—	—	—	(208,680)
Conversion of convertible loan (Note 18a)	—	—	—	—	—	62,375	62,375
Issue of share capital on October 31, 2017 (Note 17)	1,473	1,518,527	—	—	—	—	1,520,000
Transaction costs on issuance of share capital (Note 17)	—	(729,632)	—	—	—	—	(729,632)

	Issued capital	Share premium	Other capital reserves	Employee Benefit Trust	Other reserves	Accumulated losses	Total equity
				(in £)			
At December 31, 2017	213,285	118,226,956	16,359,169	—	7,000,000	(79,315,920)	62,483,490
Loss for the year to December 31, 2018	—	—	—	—	—	(32,028,740)	(32,028,740)
Adoption of IFRS 9 (Note 2.2)	—	—	—	—	—	123,866	123,866
Share-based payments—share options (Note 25)	—	—	1,869,955	—	—	—	1,869,955
Share-based payments—LTIPs (Note 25)	—	—	319,338	—	—	—	319,338
Issue of share capital on June 1, 2018 (Note 17)	150	150,078	—	—	—	—	150,228
Issue of share capital on August 3, 2018 on exercise of options (Note 17)	30	12,870	—	—	—	—	12,900
Issue of share capital on October 22, 2018 on exercise of options (Note 17)	256	109,680	—	—	—	—	109,936
Issue of warrants for TAP agreement (Note 17)	—	—	44,156	—	—	—	44,156
Transaction costs on issuance of share capital (Note 17)	—	(7,511)	—	—	—	—	(7,511)
Purchase of treasury shares (Note 27)	—	—	—	(306,838)	—	—	(306,838)
At December 31, 2018	**213,721**	**118,492,073**	**18,592,618**	**(306,838)**	**7,000,000**	**(111,220,794)**	**32,770,780**

Notes to the Consolidated Financial Statements

1. Corporate information

Mereo BioPharma Group plc (the “Company”) is a clinical-stage, U.K.-based biopharmaceutical company focused on rare diseases.

The Company is a public limited company incorporated and domiciled in the U.K., and registered in England, with our shares publicly traded on the Alternative Investment Market of the London Stock Exchange under the ticker symbol “MPH”. As of April 24, 2019, we are also listed on the Nasdaq Global Exchange via American Depositary Receipts (ADRs) under the ticker symbol “MREO” following the completion of the merger with OncoMed Pharmaceuticals, Inc. (“OncoMed”). Our registered office is located at Fourth Floor, 1 Cavendish Place, London W1G 0QF.

The consolidated financial statements of Mereo BioPharma Group plc and its subsidiaries (collectively, the “Group”) for the year ended December 31, 2018 were authorized for issue in accordance with a resolution of the directors on April 28, 2019.

2. Significant accounting policies

2.1 Basis of preparation

The Group’s annual financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

The financial information is presented in pounds sterling (“Sterling”).

2.2 Adoption of new accounting policies

The following policies have been adopted since the start of the period:

a) IFRS 9 Financial Instruments.

In the current period the Group has applied IFRS 9 Financial Instruments (as revised in July 2014) and the related consequential amendments to other IFRS. IFRS 9 introduces new requirements for 1) the classification and measurement of financial assets and financial liabilities, 2) impairment for financial assets, 3) general hedge accounting and 4) new accounting for certain modifications and exchanges of financial liabilities measured at amortized cost. The only impact on the Group is in relation to the non-substantial modification of the convertible loan notes, as detailed below. The Group has applied IFRS 9 in full without restating comparatives with an initial date of application of January 1, 2018.

In relation to the non-substantial modification of financial liabilities, IFRS 9 requires the recognition of a modification gain or loss for exchanges or modifications of financial liabilities that do not result in derecognition of the financial liability. As a result, under IFRS 9 the carrying value of the convertible loan notes at the date of modification, as more fully described in Note 18a, was adjusted to recognize the modification gain in the retained earnings as of the date of initial application of IFRS 9 (January 1, 2018).

Interest-bearing loans and borrowings—convertible loan notes

	(in £)
At January 1, 2018 calculated under IAS 39	1,977,393
Amounts restated through retained earnings	(123,865)
At January 1, 2018 under IFRS 9	1,853,528

The Group has considered the adoption of IFRS 9 on receivables and determined the expected credit loss to be immaterial, and therefore no adjustment has been made for this.

b) IFRS 15 Revenue from Contracts with Customers

In the current period the Group has adopted IFRS 15 Revenue from Contracts with Customers. The new revenue standard is applicable to all entities and will supersede all current revenue recognition requirements under IFRS. There has been no impact on Group reporting in the period.

c) IFRS 16 Leases

General impact of application of IFRS 16 Leases

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements for both lessors and lessees. IFRS 16 will supersede the current lease guidance including IAS 17 Leases and the related Interpretations when it becomes effective for accounting periods beginning on or after January 1, 2019. The date of initial application of IFRS 16 for the Group will be January 1, 2019. The Group has chosen the modified retrospective application of IFRS 16 in accordance with IFRS 16:C5(b). Consequently, the Group will not restate the comparative information. In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17.

Impact of the new definition of a lease

The Group will make use of the practical expedient available on transition to IFRS 16 not to reassess whether a contract is or contains a lease. Accordingly, the definition of a lease in accordance with IAS 17 and IFRIC 4 will continue to apply to those leases entered or modified before 1 January 2019.

The change in definition of a lease mainly relates to the concept of control. IFRS 16 distinguishes between leases and service contracts on the basis of whether the use of an identified asset is controlled by the customer. Control is considered to exist if the customer has:

- the right to obtain substantially all of the economic benefits from the use of an identified asset; and
- the right to direct the use of that asset.

The Group will apply the definition of a lease and related guidance set out in IFRS 16 to all lease contracts entered into or modified on or after January 1, 2019 (whether it is a lessor or a lessee in the lease contract). In preparation for the first-time application of IFRS 16, the Group has carried out an implementation project. The project has shown that the new definition in IFRS 16 will not change significantly the scope of contracts that meet the definition of a lease for the Group.

Impact on lessee accounting

IFRS 16 will change how the Group accounts for leases previously classified as operating leases under IAS 17, which were off-balance sheet.

On initial application of IFRS 16, for all leases (except as noted below), the Group will:

a) recognize right-of-use assets and lease liabilities in the consolidated statement of financial position, initially measured at the present value of the future lease payments;

b) recognize depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of profit or loss;

c) separate the total amount of cash paid into a principal portion (presented within financing activities) and interest (presented within operating activities) in the consolidated cash flow statement.

Lease incentives (e.g. rent-free period) will be recognized as part of the measurement of the right-of-use assets and lease liabilities whereas under IAS 17 they resulted in the recognition of a lease liability incentive, amortized as a reduction of rental expenses on a straight-line basis.

Under IFRS 16, right-of-use assets will be tested for impairment in accordance with IAS 36 Impairment of Assets. This will replace the previous requirement to recognize a provision for onerous lease contracts.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers and office furniture), the Group will opt to recognize a lease expense on a straight-line basis as permitted by IFRS 16.

As at December 31, 2018, the Group had non-cancellable operating lease commitments of £535,665.

The non-cancellable operating lease commitment and the expected lease liability balance to be recognized upon transition differs as a result of IFRS 16's requirement to include, within the lease term, the non-cancellable period of a lease, together with periods covered by an option to extend, if that option is reasonably certain to be exercised and periods covered by an option to terminate, if that option is reasonably certain to not be exercised.

A preliminary assessment indicates that all of these arrangements relate to leases other than short-term leases and leases of low-value assets, and hence the Group will recognise a right-of-use asset of £2,551,810 and a corresponding lease liability of £2,533,647 in respect of all these leases. The impact on 2019 profit or loss is to decrease other expenses by £1,093,920, to increase depreciation by £696,948 and to increase interest expense by £322,662. Lease liability incentives of £32,090 previously recognized in respect of the operating leases will be derecognized and the amount factored into the measurement of the right-to-use assets and lease liabilities.

The preliminary assessment indicates that £nil of these arrangements relate to short-term leases and leases of low-value assets.

Under IAS 17, all lease payments on operating leases are presented as part of cash flows from operating activities. The impact of the changes under IFRS 16 to the 2019 statement of cash flows would be to reduce the cash used in operating activities by £932,268 and to increase net cash used in financing activities by the same amount.

2.3 Going concern

Though the Group continues to make losses, the directors believe it is appropriate to prepare the financial information on the going concern basis. This is because the Group's research into new

products continues to progress according to plan and the funding secured to date, together with the funds that have come into the Group since the year end by way of the completed merger with OncoMed (as described more fully in Note 29) will allow it to meet its liabilities as they fall due for at least 12 months from the date of authorization for the issue of these consolidated financial statements.

2.4 Basis of consolidation

The consolidated financial information comprises the financial statements of Mereo BioPharma Group plc and its subsidiaries as at December 31, 2018. Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases. Intercompany transactions, balances and unrealized gains on transactions between Group companies are eliminated in preparing the consolidated financial statements. Accounting policies of subsidiaries are consistent with the policies adopted by the Group.

The Company has an employee share trust to facilitate share transactions pursuant to employee share schemes. Although the trust is a separate legal entity from the Group, it is consolidated into the Group's results in accordance with the IFRS 10 rules on special purpose vehicles. The Company is deemed to control the trust principally because the trust cannot operate without the funding the Group provides.

All Group subsidiaries prepare yearly financial information to December 31 consistent with the Company.

2.5 Summary of significant accounting policies

a) Taxes

Current income tax

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, and include R&D tax credits receivable under the HM Revenue and Customs (HMRC) small or medium enterprise (SME) scheme, which provides additional taxation relief for qualifying expenditure on R&D activities, and allows for the surrender of tax losses in exchange for a cash payment from HMRC.

Current income tax relating to items recognized directly in equity is recognized in equity and not in the statement of comprehensive loss.

Income tax credit

The Group benefits from the U.K. R&D tax credit regime whereby a portion of the Group's losses can be surrendered for a cash rebate of up to 33.35% of eligible expenditures. Such credits are accounted for within the tax provision, in the year in which the expenditures were incurred.

Deferred tax

Deferred tax is provided using the liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred income tax assets are recognized for all deductible temporary differences, carry-forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilized. The carrying amount of deferred income tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilized. Unrecognized deferred income tax assets are reassessed at the end of each reporting period and are recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply to the year when the asset is realized, based on tax rates (and tax laws) enacted or substantively enacted at the end of the reporting period.

b) Foreign currencies

The functional currency of the Company and its subsidiaries is Sterling. Transactions in foreign currencies are initially recorded by the Group's entities at the rate ruling on the date the transaction first qualifies for recognition.

Differences arising on settlement or translation of monetary items are recognized in profit or loss.

Gains or losses on the retranslation of foreign currency balances at the year end are recognized in the consolidated statement of comprehensive loss under net foreign exchange gains/(losses).

c) Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the plant and equipment if the recognition criteria are met. All other repair and maintenance costs are recognized in profit or loss as incurred.

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets, as follows:

- Leasehold improvements ten years
- Office equipment five years
- IT equipment three years

An item of property, plant and equipment and any significant part initially recognized is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of comprehensive loss when the asset is derecognized.

The residual values, useful lives and methods of depreciation of property, plant and equipment are reviewed at each financial year end and adjusted prospectively, if appropriate.

d) Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the statement of comprehensive loss on a straight-line basis over the period of the lease.

The Group leases its premises (see Note 26). The Company recognizes any lease incentives on a straight-line basis over the entire period of the lease, assuming that any break clauses available will not be exercised. By not exercising any break clauses, the Group receives a 50% rent discount from the landlord for a fixed period of time as described in Note 26.

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception date. The arrangement is assessed for whether fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset or assets, even if that right is not explicitly specified in an arrangement.

e) Intangible assets

Intangible assets, relating to intellectual property rights acquired through licensing or assigning patents and know-how, are initially recognized at cost which has been determined as the fair value of the consideration paid and payable. Consideration comprises cash paid together with the net present value of any provision for deferred cash consideration (see Note 2.5p) and the fair value of consideration settled in shares. The fair value of consideration is regularly reviewed based on the probability of achieving the contractual milestones. Where share transfer occurs, the cost is measured at fair value of the shares issued or to be issued in accordance with IFRS 2. Intangible assets are held at cost less accumulated amortization and provision for impairment, if any. Where a finite useful life of the acquired intangible asset cannot be determined or the intangible asset is not yet available for use, the asset is tested annually for impairment by allocating the assets to the cash-generating units to which they relate. Amortization would commence when product candidates underpinned by the intellectual property rights become available for commercial use. No amortization has been charged to date, as the product candidates underpinned by the intellectual property rights are not yet available for commercial use.

f) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- in the principal market for the asset or liability; or
- in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1—quoted (unadjusted) market prices in active markets for identical assets or liabilities.

- Level 2—valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- Level 3—valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

g) Impairment of non-financial assets

Further disclosures relating to impairment of non-financial assets are also provided in the following notes:

- Disclosures for significant assumptions Note 3
- Property, plant and equipment Note 11
- Intangible assets not yet available for use Notes 12 and 13

The Group assesses, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs of disposal and its value in use. The recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded companies or other available fair value indicators.

Impairment losses are recognized in the statement of comprehensive loss in expense categories consistent with the function of the impaired asset.

An assessment is made at each reporting date to determine whether there is an indication that previously recognized impairment losses no longer exist or have decreased. If such indication exists, the Group estimates the asset's or CGU's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the statement of comprehensive loss unless the asset is carried at a revalued amount, in which case the reversal is treated as a revaluation increase.

Intangible assets not yet available for use are tested for impairment annually as at December 31 at the CGU level, as appropriate, and when circumstances indicate that the carrying value may be impaired. An impairment test was performed at December 31, 2018.

h) Cash and short-term deposits

Cash and short-term deposits in the balance sheet comprise cash at banks and on hand and short-term deposits with a maturity of three months or less, which are subject to an insignificant risk of changes in value.

i) Short-term investments

Cash on deposit for terms greater than three months are recognized at fair value in the balance sheet.

j) Provisions

General

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the statement of comprehensive loss net of any reimbursement.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, when appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

k) Share-based payments

Employees (including senior executives) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments (equity settled transactions).

Incentives in the form of shares are provided to employees under the Share Option Plan. Executive officers are also provided with shares under a deferred bonus share plan (“DBSP Plan”) and a long-term incentive plan (“LTIP Plan”). In accordance with IFRS 2 Share-based Payment (“IFRS 2”), charges for these incentives are expensed through the consolidated statement of comprehensive loss on a straight-line basis over their vesting period, based on the Group’s estimate of shares that will eventually vest. The total amount to be expensed is determined by reference to the fair value of the options or awards at the date they were granted. For LTIP shares, the fair value excludes the impact of any non-market vesting conditions. The fair value of LTIP shares, which have market conditions attached, includes an adjustment based on the probability of the shares vesting at the end of the vesting period.

Under the 2015 Plan, options were historically awarded to employees, NEDs and certain consultants. Share options awarded to non-employees under the 2015 Plan are accounted for as options awarded to employees as the value of non-employee services could be readily determined.

In accordance with IFRS 2, the cancellation of share options is accounted for as an acceleration of the vesting period and therefore any amount unrecognized that would otherwise have been charged in future accounting periods is recognized immediately. When options are forfeited, the accounting expense for any unvested awards is reversed.

Purchases, where consideration is satisfied by issuing equity shares is accounted for as equity settled share-based payment transactions in accordance with IFRS 2. Fair value is determined by the share price at the date of purchase.

l) Costs of issuing capital

The Group deducts directly attributable costs of issuing capital from the proceeds in accordance with IAS 39 Financial Instruments: Recognition and Measurement. Incremental costs incurred and directly attributable to the offering of equity securities are deducted from the related proceeds of the offering. The net amount is recorded as share premium in the period when such shares are issued. Where such expenses are incurred prior to the offering they are recorded in prepayments until the offering completes. Other costs incurred in such offerings are expensed as incurred and included in general and administrative expenses.

m) Convertible loan instrument

Convertible loan notes are regarded as compound instruments consisting of a liability component and an equity component. At the date of issue the fair value of the liability component is estimated using a discount rate for an equivalent liability without the conversion feature. The difference between the proceeds of issue of the convertible loan note and the fair value assigned to the liability component, representing the embedded option to convert the liability into equity of the Group, is included in equity.

An exchange between an existing borrower and lender of debt instruments with substantially different terms are accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability as per IAS 39 and IFRS 9. Similarly, a substantial modification of the terms of an existing financial liability, or a part of it (whether or not due to the financial difficulty of the debtor) should be accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

In line with IAS 39 the terms of exchanged or modified debt are regarded as substantially different if the net present value of the cash flows under the new terms (including any fees paid net of any fees received) discounted at the original effective interest rate is at least 10% different from the discounted present value of the remaining cash flows of the original debt instrument. Where such modifications are less than 10% different, the effective interest rate is adjusted to take account of the new terms.

n) Employee Benefit Trust

The Group operates an Employee Benefit Trust (EBT): Mereo BioPharma Group plc Employee Benefit Trust.

The EBT has been established to fulfil awards made under the Deferred Bonus Share Plan and the Long Term Incentive Plan. The EBT is a Jersey-based trust which is funded by a loan from the Company, which it will utilize to buy shares at nominal value from the Company in sufficient quantity to fulfil the envisaged awards. The EBT will acquire shares in the Company and these will be deducted from the shareholders' funds on the consolidated balance sheet at the cost of acquisition less proceeds on disposal.

In compliance with IAS 32 Financial Instruments: Presentation Group, shares held by the EBT are included in the consolidated balance sheet as a reduction in equity. Gains and losses on Group shares are recognized directly in equity.

The Group consolidated accounts treat the EBT as an extension of the Group and the Company as it is controlled and therefore consolidated.

o) Research and development

Expenditure on product development is capitalized as an intangible asset and amortized over the expected useful economic life of the product candidate concerned. Capitalization commences from the

point at which technical feasibility and commercial viability of the product candidate can be demonstrated and the Group is satisfied that it is probable that future economic benefits will result from the product candidate once completed. Capitalization ceases when the product candidate receives regulatory approval for launch. No such costs have been capitalized to date.

Expenditure on R&D activities that do not meet the above criteria, including ongoing costs associated with acquired intellectual property rights and intellectual property rights generated internally by the Group, is charged to the statement of comprehensive loss as incurred. Intellectual property and in-process research and development from asset acquisitions are recognized as intangible assets at cost.

p) Provision for deferred cash consideration

Provision for deferred cash consideration consists of future payments which are contractually committed but not yet certain. In respect of products which are not yet approved, such deferred cash consideration excludes potential milestones, royalties or other payments that are deemed to be so uncertain as to be unquantifiable. Deferred cash consideration is recognized as a liability with the amounts calculated as the risk adjusted net present value of anticipated deferred payments.

The provision is reviewed at each balance sheet date and adjusted based on the likelihood of contractual milestones being achieved and therefore the deferred payment being settled. Increases in the provision relating to changes in the probability are recognized as an intangible asset. Increases in the provision relating to the unwinding of the time value of money are recognized as a finance expense.

q) Bank loan and associated warrants

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest rate (EIR) method. The EIR amortization is included as a finance charge in the statement of comprehensive loss. This category applies to interest-bearing borrowings, trade and other payables.

As the terms of the warrant instrument allow for a cashless exercise, in line with IAS 32 the associated warrants are measured at fair value with changes recorded through the statement of comprehensive loss (see Note 20).

An exchange between an existing borrower and lender of debt instruments with substantially different terms are accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability as per IAS 39 and IFRS 9. Similarly, a substantial modification of the terms of an existing financial liability, or a part of it, (whether or not due to the financial difficulty of the debtor) should be accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

In line with IAS 39 the terms of exchanged or modified debt are regarded as substantially different if the net present value of the cash flows under the new terms (including any fees paid net of any fees received) discounted at the original effective interest rate is at least 10% different from the discounted present value of the remaining cash flows of the original debt instrument. Where such modifications are less than 10% different, the effective interest rate is adjusted to take account of the new terms.

r) The Alpha-1 Project (TAP) funding agreement and associated warrants

The agreement is regarded as a compound instrument which includes both debt and equity components. As per IAS 32:31 the liability is measured first at fair value and the residual value

allocated to the equity component. The difference between the funding payment amount received and the measurement of the liability will be allocated to the warrants and recognized in equity. The value of warrants in equity will not be subsequently re-measured, as the warrants will be settled by providing a fixed number of shares for a fixed amount of cash.

3. Significant accounting judgments, estimates and assumptions

The preparation of the consolidated accounts requires the management of the Group to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. The Group bases its estimates and judgments on historical experience and on various other assumptions that it considers to be reasonable. Actual results may differ from these estimates under different assumptions or conditions.

Judgements

Share-based compensation

Incentives in the form of shares are provided to employees under a share option plan, long-term incentive plan and deferred bonus share plan. The fair value of the employee services received in exchange for the grant of the options is recognized as an expense. The expense is based upon a number of assumptions disclosed in Note 25. The selection of different assumptions could affect the results of the Group.

Impairment of intangible assets and property, plant and equipment

An assessment was made in respect of indicators of impairment in the carrying value of the Group's intangible assets (see Note 13) and leasehold improvements, office equipment and IT equipment as at December 31, 2018. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the income statement. The assessment of intangible assets involves a number of judgments regarding the likelihood of successful product approval, the costs of reaching approval and the subsequent commercial profitability of the product once approved.

Estimates

Deferred license consideration

Deferred consideration in the form of cash is recognized as a provision at each balance sheet date, to the extent its amount is quantifiable at the inception of the arrangement. The amount provided is based on a number of estimates regarding the timing and progress of the related research.

Deferred consideration in the form of shares is recognized as a share-based payment when it is probable that shares will be transferred.

Bank loan and associated warrants

As part of the bank loan the Group has issued warrants to subscribe for shares. The fair value of the warrants issued is assessed at each balance sheet date based upon a number of estimates, as disclosed in Note 20.

4. Segment information

Management views the business as a single portfolio of product candidates. Only R&D expenses are monitored at a product candidate level, however the Chief Operating Decision Maker (CODM)

makes decisions over resource allocation at an overall portfolio level. The Group's financing is managed and monitored on a consolidated basis. All non-current assets held by the Group are located in the U.K.

The Company's CODM is the executive management team (comprised of the Chief Executive Officer, Chief Financial Officer, Chief Medical Officer, General Counsel, the Head of Corporate Development and the Head of Patient Access and Commercial Planning) which manages the operating results of the business.

5. Group information

Information about subsidiaries

The consolidated financial statements of the Group include:

Name	Principal activities	Country of incorporation	% equity interest December 31, 2017	% equity interest December 31, 2018
Mereo BioPharma 1 Limited	Pharmaceutical R&D	U.K.	100	100
Mereo BioPharma 2 Limited	Pharmaceutical R&D	U.K.	100	100
Mereo BioPharma 3 Limited	Pharmaceutical R&D	U.K.	100	100
Mereo BioPharma 4 Limited	Pharmaceutical R&D	U.K.	100	100
Mereo BioPharma Ireland Limited	Pharmaceutical R&D	Ireland	—	100
Mereo US Holdings Inc	Holding	U.S.	—	100
Mereo MergerCo One Inc.	Holding	U.S.	—	100
Mereo BioPharma Group plc Employee Benefit Trust	Employee share scheme	Jersey	—	—

6. Compensation of key management personnel of the Group

Key management includes directors (executive and non-executive) and executive officers being the General Counsel, the Chief Medical Officer, the Head of Corporate Development and the Head of Patient Access and Commercial Planning. The compensation paid or payable to key management is set out below:

	Year ended December 31, 2016	2017	2018
		(in £)	
Short-term benefits	2,111,712	2,756,979	3,176,168
Post-employment benefits	106,500	87,269	59,522
IFRS 2 share-based payment charge	4,631,853	2,726,337	1,470,025
Total compensation paid to key management personnel	6,850,065	5,570,585	4,705,715

7. Finance income and Finance charge

Finance income

	Year ended December 31 2016	2017	2018
		(in £)	
Bank interest earned	374,906	826,855	306,831

Finance charge

	Year ended December 31,		
	2016	2017	2018
		(in £)	
Interest payable on convertible loan	(179,765)	(103,115)	(185,352)
Interest payable on bank loan	—	(327,123)	(1,644,610)
Accreted interest on bank loan	—	(66,935)	(781,998)
Transaction costs on bank loan	—	(200,000)	—
Loss on short-term deposits	—	(338,279)	(21,903)
Increase in provision for deferred cash consideration	—	—	(443,000)
Change in warrant fair value	—	(54,473)	716,214
Total finance charge	(179,765)	(1,089,925)	(2,360,648)

8. Employee benefits expense

	December 31,		
	2016	2017	2018
		(in £)	
Included in research and development expenses:			
Salaries	1,150,222	1,640,373	1,791,679
Social security costs (See Note 19)	344,467	420,417	(29,670)
Pension contributions	50,864	77,425	73,401
Share-based payment expense	1,550,884	822,173	525,972
Included in administrative expenses:			
Salaries	2,132,920	2,253,393	2,902,759
Social security costs	1,040,409	1,159,548	(827,509)
Pension contributions	109,187	96,598	97,962
Share-based payment expense	4,943,133	2,829,725	1,663,322
Total employee benefits expense	11,322,086	9,299,652	6,197,916

9. Income tax

The Group is entitled to claim tax credits in the U.K. under the U.K. R&D small or medium-sized enterprise (SME) scheme, which provides additional taxation relief for qualifying expenditure on R&D activities and includes an option to surrender a portion of tax losses arising from qualifying activities in return for a cash payment from HM Revenue & Customs (HMRC). The amount included in the financial statements represents the credit receivable by the Group for the year. The claims in respect of the year ended December 31, 2016 were received by the Group in May 2017. The claims in respect of the year ended December 31, 2017 were received by the Group in August 2018. In the year ended December 31, 2018 amounts have not yet been agreed with the relevant tax authorities.

	Year ended December 31		
	2016	2017	2018
		(in £)	
U.K. corporation tax R&D credit	5,331,271	8,152,084	5,277,380
Income tax credit	5,331,271	8,152,084	5,277,380

The charge for the year can be reconciled to the loss per the income statement as follows:

	Year-ended December 31,		
	2016	2017	2018
		(in £)	
Loss on ordinary activities before income tax	(33,721,551)	(46,951,138)	(37,306,120)
Loss on ordinary activities before tax at the U.K.'s statutory income tax rate of 19% (2017: 19.25%)	6,744,310	9,038,094	7,088,163
Expenses not deductible for tax purposes (permanent differences)	(15,116)	(14,316)	(1,069,606)
Temporary timing differences	(1,300,044)	(711,677)	(276,881)
R&D relief uplift	2,134,107	3,447,474	2,270,777
Losses (unrecognized)	(2,231,986)	(3,784,801)	(2,803,796)
Deferred income from MBG loan guarantee costs	—	177,310	68,723
Tax credit for the year	5,331,271	8,152,084	5,277,380

At December 31, 2018 the Group had tax losses to be carried forward of approximately £50,611,184 (2017: £36,010,916).

Deferred tax

Deferred tax relates to the following:

	December 31,		
	2016	2017	2018
		(in £)	
Losses	2,778,396	6,121,400	8,603,902
Fixed assets	(9,883)	—	3,011
Other	2,210	—	2,888
Temporary differences trading	—	2,266,798	494,779
Net deferred tax asset	2,770,723	8,388,198	9,104,580

The deferred tax asset has not been recognized as there is uncertainty regarding when suitable future profits against which to offset the accumulated tax losses will arise. There is no expiration date for the accumulated tax losses.

A reduction in the rate of U.K. corporation tax to 19% from April 1, 2017 and to 17% from April 1, 2020 has been substantively enacted. The standard rate of corporation tax applied to reported loss is 19% (2017: 19.25%) and any U.K. deferred tax assets and liabilities would be recognized at a rate of 17%.

10. Loss per share

Basic loss per share is calculated by dividing the loss attributable for the year to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year. As net losses from continuing operations were recorded in the year, the dilutive potential shares are anti-dilutive for the earnings per share calculation.

	December 31,								
	2016			2017			2018		
	Loss £	Weighted shares number	Loss per share £	Loss £	Weighted shares number	Loss per share £	Loss £	Weighted shares number	Loss per share £
Basic and diluted	(28,390,280)	44,789,893	(0.63)	(38,799,054)	69,012,348	(0.56)	(32,028,740)	71,144,786	(0.45)

The Company operates share option schemes (see Note 25) which could potentially dilute basic earnings per share in the future. In addition, there exist within equity 864,988 (2017: 864,988) shares to be issued which also have the potential to dilute basic earnings per share in the future (see Note 17).

As part of a license and option agreement with AstraZeneca (see Note 26), additional future payments of a maximum of 1,349,692 new ordinary shares would be payable on reaching certain clinical milestones.

Warrants totalling 41,286 were issued in 2018 that could potentially dilute basic earnings per share if converted. Warrants totalling 696,490 were issued in 2017 that could potentially dilute basic earnings per share if converted.

For transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of authorization of these financial statements, see Note 29.

11. Property, plant and equipment

	Leasehold improvements	Office equipment	IT equipment	Total
		(in £)		
Cost or valuation				
At January 1, 2016	155,494	20,024	40,360	215,878
Additions	—	—	3,467	3,467
Disposals	—	—	(1,175)	(1,175)
At December 31, 2016	**155,494**	**20,024**	**42,652**	**218,170**
Depreciation and impairment				
At January 1, 2016	**(5,625)**	**(1,335)**	**(4,401)**	**(11,361)**
Disposals	—	—	457	457
Depreciation for the year	(15,549)	(4,005)	(13,843)	(33,397)
At December 31, 2016	**(21,174)**	**(5,340)**	**(17,787)**	**(44,301)**
Net book value				
At January 1, 2016	149,869	18,689	35,959	204,517
At December 31, 2016	**134,320**	**14,684**	**24,865**	**173,869**
Cost or valuation				
At January 1, 2017	155,494	20,024	42,652	218,170
Additions	—	10,107	5,461	15,568
Disposals	—	—	—	—
At December 31, 2017	**155,494**	**30,131**	**48,113**	**233,738**
Depreciation and impairment				
At January 1, 2017	**(21,174)**	**(5,340)**	**(17,787)**	**(44,301)**
Disposals	—	—	—	—
Depreciation for the year	(15,549)	(5,386)	(15,141)	(36,076)
At December 31, 2017	**(36,723)**	**(10,726)**	**(32,928)**	**(80,377)**
Net book value				
At January 1, 2017	134,320	14,684	24,865	173,869

	Leasehold improvements	Office equipment	IT equipment	Total
		(in £)		
At December 31, 2017	**118,771**	**19,405**	**15,185**	**153,361**
Cost or valuation				
At January 1, 2018	155,494	30,131	48,113	233,738
Additions	9,119	1,270	25,147	35,536
Disposals	—	—	(2,167)	(2,167)
At December 31, 2018	**164,613**	**31,401**	**71,093**	**267,107**
Depreciation and impairment				
At January 1, 2018	**(36,723)**	**(10,726)**	**(32,928)**	**(80,377)**
Disposals	—	—	1,685	1,685
Depreciation for the year	(15,909)	(6,238)	(17,334)	(39,481)
At December 31, 2018	**52,632**	**16,964**	**48,577**	**118,173**
Net book value				
At January 1, 2018	118,771	19,405	15,185	153,361
At December 31, 2018	**111,981**	**14,437**	**22,516**	**148,934**

12. Intangible assets

	Acquired Development Programs
	(in £)
Cost at January 1, 2016	25,812,941
Additions	—
At December 31, 2016	25,812,941
Amortization and impairment	
At January 1, 2016	—
Impairment (Note 13)	—
At December 31, 2016	—
Net book value	
At January 1, 2016	25,812,941
At December 31, 2016	25,812,941
Cost at January 1, 2017	25,812,941
Additions	7,192,288
At December 31, 2017	33,005,229
Amortization and impairment	
At January 1, 2017	—
Impairment (Note 13)	—
At December 31, 2017	—
Net book value	
At January 1, 2017	25,812,941
At December 31, 2017	33,005,229
Cost at January 1, 2018 and December 31, 2018	33,005,229

	Acquired Development Programs (in £)
Amortization and impairment	
At January 1, 2018	—
Revision to estimated value	(373,000)
At December 31, 2018	(373,000)
Net book value	
At January 1, 2018	33,005,229
At December 31, 2018	32,632,229

The Group's strategy is to acquire clinical-stage development programs for the treatment of non-rare and rare diseases from large pharmaceutical companies.

On October 28, 2017, the Group acquired the exclusive license for MPH-966 and included the option to acquire certain assets from AstraZeneca AB ("AstraZeneca"). MPH-966 is being developed for the treatment of severe alpha-1 antitrypsin deficiency, at a cost of £7,192,288 as follows:

	Year ended December 31,	
	2017	2018
	(in £)	
Cash payment in October 2017	2,280,000	2,280,000
Equity issued (see Note 17)	1,520,000	1,520,000
Deferred equity consideration (see Note 25)	1,331,288	1,331,288
Provision for deferred cash consideration (see Note 19)	2,061,000	1,688,000
	7,192,288	6,819,288

The present value of the provision for deferred cash consideration was reviewed at December 31, 2018 (see Note 19). The decrease in present value due to changes in timelines and probability of contractual milestones being achieved was £373,000 and is recognized in the intangible asset in line with our accounting policies.

13. Impairment testing of acquired development programs not yet available for use

Acquired development programs not yet available for use are assessed annually for impairment.

The carrying amount of acquired development programs is as follows:

	As at December 31, 2017 (in £)				
	BPS-804 (setrusumab)	MPH-966 (alvelestat)	BGS-649 (leflutrozole)	BCT-197 (acumapimod)	Total
Acquired development programs	11,615,824	7,192,288	9,886,356	4,310,761	33,005,229

	As at December 31, 2018 (in £)				
	BPS-804 (setrusumab)	MPH-966 (alvelestat)	BGS-649 (leflutrozole)	BCT-197 (acumapimod)	Total
Acquired development programs	11,615,824	6,819,288	9,886,356	4,310,761	32,632,229

The Group considers the future development costs, the probability of successfully progressing each program to product approval and the likely commercial returns after product approval, among other factors, when reviewing for indicators of impairment. The results of this testing did not indicate any impairment of the acquired products' rights in the year to December 31, 2018. The directors believe that the likelihood of a materially different outcome using different assumptions is remote.

The acquired development programs are assets which are not used in launched products. These assets have not yet begun to be amortized but have been tested for impairment by assessing their value in use. Value in use calculations for each program are utilized to calculate the recoverable amount. The calculations use pre-tax cash flow projections covering the period through product development to commercial sales up to the later of loss of patent protection or market exclusivity, which extend beyond five years from the balance sheet date. Approved products are assumed to be out-licensed such that the Group receives signature fees, milestone receipts and royalties on sales; therefore, the Group does not incur any costs of commercialization after out-licensing.

Key assumptions for the value in use calculations are described as follows:

- development costs to obtain regulatory approval—costs are estimated net of any contributions expected from collaborative arrangements with future partners. The directors have developed cost estimates based on their previous experience and in conjunction with the expertise of their clinical development partners;
- launch dates of products—these reflect management's expected date of launch for products based on the timeline of development programs required to obtain regulatory approval. The assumptions are based on the directors' and clinical development partners' prior experience;
- probability of successful development—management estimates probabilities of success for each phase of development based on industry averages and knowledge of specific programs;
- out-licensing signature fees, milestones and royalty rates on sales—management estimates these amounts based on prior experience and access to values from similar transactions in the industry, which are collated and accessible from specialist third-party sources;
- sales projections—these are based on management's internal projections using external market data and market research commissioned by the Company;
- profit margins and other operational expenses—these are based on the Company's internal projections of current product manufacturing costings, with input from manufacturing partners where applicable, and estimates of operating costs based on management's prior industry experience;
- cash flow projections—for all assets, cash flows are assessed over an industry-standard asset life of 20 years; and
- discount rates—the discount rate is estimated on a pre-tax basis reflecting the estimated cost of capital of the Group and is applied consistently across each of the operating segments. The cost of capital was calculated at 15.3% (2017: 15.3%).

At this stage of product development, the key sensitivity for all three development programs is the probability of successful completion of clinical trials in order to obtain regulatory approval for sale. Therefore, full impairment of a development program is expected should such related trials be unsuccessful.

14. Other receivables

	December 31, 2017	2018
	(in £)	
Rent deposit	293,328	**293,328**
VAT recoverable	212,422	**315,565**
Cash held by Employee Benefit Trust	3,600	**—**
	509,350	**608,893**

15. Cash and short-term deposits

	December 31, 2017	2018
	(in £)	
Cash at banks and on hand	11,005,675	**5,343,975**
Short-term deposits	39,038,997	**19,697,970**
	50,044,672	**25,041,945**

Cash at banks earns interest at floating rates based on daily bank deposit rates, with maturity of three months or less. Short-term deposits are available immediately and earn fixed interest at the respective short-term deposit rates and are held in a diversified portfolio of counterparties.

16. Short-term investments

	December 31, 2017	2018
	(in £)	
Short-term investments	2,500,000	**2,500,000**

Short-term investments consist of cash deposits held with greater than three months term to maturity. None of these investments are held with terms greater than a year.

17. Issued capital and reserves

Ordinary share capital	2016
	(in £)
Balance at beginning of year	59,221
Issuances in the year	133,801
Nominal share capital as at December 31	193,022
Ordinary shares issued and fully paid	
At January 1, 2016	19,740,296
Issued on June 9, 2016 for private financing round	39,464,540
Issued on June 9. 2016 for private placement	5,135,962
At December 31, 2016	64,340,798
Nominal value at December 31, 2016 (£)	0.003
Issued capital at December 31, 2016 (£)	193,022

Ordinary share capital	2017 (in £)
Balance at beginning of year	193,022
Issuances in the year	20,263
Nominal share capital as at December 31	213,285
Ordinary shares issued and fully paid	
Issued on April 3, 2017 for private placement financing round	5,042,017
Issued on April 26, 2017 for conversion of loan note	1,221,361
Issued on October 28, 2017 for acquisition of license	490,798
At December 31, 2017	71,094,974
Nominal value at December 31, 2017 (£)	0.003
Issued capital at December 31, 2017 (£)	213,285

Ordinary share capital	2018 (in £)
Balance at beginning of year	**213,285**
Issuances in the year	**436**
Nominal share capital as at December 31	**213,721**
Ordinary shares issued and fully paid	
At January 1, 2018	**71,094,974**
Issued on June 1, 2018 for public offering	**50,076**
Issued on August 3, 2018 for exercise of share options	**10,000**
Issued on October 22, 2018 for exercise of share options	**85,222**
At December 31, 2018	**71,240,272**
Nominal value at December 31, 2018 (£)	**0.003**
Issued capital at December 31, 2018 (£)	**213,721**

Since January 1, 2016, the following alterations to the Company's share capital have been made:

- under the subscription agreement dated July 28, 2015, as amended by an agreement dated June 1, 2016, the Company issued and allotted 39,464,540 ordinary shares of £0.003 in nominal value in the capital of the Company on June 9, 2016 at a price of £1.84 per share. 39,699 of these ordinary shares were issued to WG Partners LLP, for no cash consideration, as payment for financial advisory services;
- on March 21, 2016 the Directors of the Company signed a solvency statement with the agreement of all shareholders and undertook a capital reduction, reducing the share premium account by £7,000,000 and crediting a new Other reserve by the same amount;
- under a private placement dated June 9, 2016, the Company issued and allotted 5,135,962 ordinary shares of £0.003 in nominal value in the capital of the Company on June 9, 2016 at a price of £2.21 per share; and
- on June 9, 2016, the Company's ordinary shares were admitted to trading on the AIM market of the London Stock Exchange.
- under the private placement dated April 3, 2017, the Company issued and allotted 5,042,017 ordinary shares of £0.003 in nominal value in the capital of the Company on April 3, 2017 at a price of £2.975 per share to institutional investors. Gross cash received was £15,000,000;
- on April 26, 2017 Novartis converted £1,398,552 of loan notes dated June 3, 2016 into 632,829 ordinary shares of £0.003 in nominal value in the capital of the Company at the fixed

conversion price of £2.21 per share. Under the terms of the notes, Novartis also received 588,532 bonus shares;

- on October 31, 2017, Mereo BioPharma Group plc issued 490,798 ordinary shares of £0.003 in nominal value in the capital of the Company to AstraZeneca AB as part payment for the acquisition by Mereo BioPharma 4 Limited of an exclusive license and option to acquire certain assets;
- under the public offering dated June 1, 2018, the Company issued and allotted 50,076 ordinary shares of £0.003 in nominal value in the capital of the Company on June 1, 2018 at a price of £3.00 per share to investors. Gross cash received was £150,228;
- on August 3, 2018 the Company issued and allotted 10,000 ordinary shares of £0.003 in nominal value in the capital of the Company pursuant to an exercise of employee share options; and
- on October 22, 2018 the Company issued and allotted 85,222 ordinary shares of £0.003 in nominal value in the capital of the Company pursuant to an exercise of employee share options.

Share premium	December 31, 2016 (in £)
At January 1, 2016	26,212,880
Share capital reduction on March 21, 2016	(7,000,000)
Issuance of share capital for private financing round on June 9, 2016	72,423,314
Issuance of share capital for private placement on June 9, 2016	11,335,069
Transaction costs for issued share capital	(2,995,864)
At December 31, 2016	99,975,399

Share premium	December 31, 2017 (in £)
At January 1, 2017	99,975,399
Issued on April 3, 2017 for private placement financing round	14,984,875
Issued on April 26, 2017 for conversion of loan note	2,477,787
Issued on October 28, 2017 for acquisition of license	1,518,527
Transaction costs for issued share capital	(729,632)
At December 31, 2017	118,226,956

Share premium	December 31, 2018 (in £)
At January 1, 2018	**118,226,956**
Issued on June 1, 2018 for public offering	**150,078**
Issued on August 3, 2018 for exercise of share options	**12,870**
Issued on October 22, 2018 for exercise of share options	**109,681**
Transaction costs for issued share capital	**(7,512)**
At December 31, 2018	**118,492,073**

Other capital reserves

	Shares to be issued	Share-based payments	Equity component of convertible loan	Total
			(in £)	
At January 1, 2016	18,677,840	2,982,265	—	21,660,105
Share-based payments expense during the year	—	6,494,018	—	6,494,018
Shares issued	(16,003,363)	—	—	(16,003,363)
Equity component of convertible loan instrument	—	—	516,802	516,802
At December 31, 2016	2,674,477	9,476,283	516,802	12,667,562
At January 1, 2017	2,674,477	9,476,283	516,802	12,667,562
Share-based payments expense during the year	—	4,983,186	—	4,983,186
Shares issued	(1,082,899)	—	—	(1,082,899)
Equity component of convertible loan instrument	—	—	(208,680)	(208,680)
At December 31, 2017	1,591,578	14,459,469	308,122	16,359,169

	Shares to be issued	Share-based payments	Equity component of convertible loan	Warrants issued for TAP funding	Total
			(in £)		
At January 1, 2018	1,591,578	14,459,469	308,122	—	16,359,169
Share-based payments expense during the year	—	2,302,335	—	—	2,302,335
Share-based payments release for exercise of options	—	(113,042)	—	—	(113,042)
Warrants issued for TAP funding	—	—	—	44,156	44,156
At December 31, 2018	**1,591,578**	**16,648,762**	**308,122**	**44,156**	**18,592,618**

Share-based payments

The Group has various share option schemes under which options to subscribe for the Group's shares have been granted to certain executives, NEDs and employees (see Note 25 for further details).

The share-based payment reserve is used to recognize a) the value of equity settled share-based payments provided to employees, including key management personnel, as part of their remuneration and b) deferred equity consideration. Refer to Note 25 for further details of these plans. Of the £6,494,018 share-based payment expense in 2016, £298,836 is an accelerated charge relating to 500,000 share options which were cancelled on June 9, 2016.

Shares issued/to be issued

Shares to be issued at January 1, 2016 of £18,677,840 represented a maximum potential 10,151,000 bonus shares due to Novartis under the terms of an investment in the prior year. Of the

44,600,502 ordinary shares issued on June 9, 2016, 8,697,480 shares were issued to Novartis as fully paid up bonus shares (for £nil consideration), the number of which was calculated to maintain its shareholding at 19.5%. The fair value of these shares was £1.84 per share. At December 31, 2016, £2,674,477 representing a maximum of 1,453,520 shares at £1.84 were remaining to be issued to Novartis pro rata to their percentage shareholding as and when the Company issues further ordinary shares.

Of the 1,221,361 ordinary shares issued on April 26, 2017, 588,532 shares were issued to Novartis as fully paid up bonus shares (for £nil consideration), the number of which was calculated to maintain its shareholding at 19.5%. The fair value of these shares was £1.84 per share. At December 31, 2018 and December 31, 2017, £1,591,578 representing a maximum of 864,988 shares at £1.84 were remaining to be issued to Novartis pro rata to its percentage shareholding as and when the Company issues further ordinary shares.

Equity component of convertible loan instrument

The convertible loan notes issued to Novartis are a compound instrument consisting of a liability and an equity component (see Note 18a). The value of the equity component (cost of the conversion option) as at December 31, 2018 is £308,122 (2017: £308,122; 2016: £516,802).

Warrants issued for TAP funding

The funding arrangements with The Alpha-1 Project are a compound instrument consisting of a liability and an equity component (see Note 21). The value of the equity component (consideration received for the warrants) as at December 31, 2018 is £44,156 (2017: £nil; 2016: £nil).

Accumulated loss

	Year ended December 31		
	2016	2017	2018
		(in £)	
Other reserves	7,000,000	7,000,000	7,000,000
Accumulated losses	(40,579,241)	(79,315,920)	(111,220,794)
Accumulated deficit	(33,579,241)	(72,315,920)	(104,220,794)

18. Interest-bearing loans and borrowings

	Year ended December 31	
	2017	2018
	(in £)	
Novartis Notes—see Note 18a	1,977,393	2,038,881
Bank loan—see Note 18b	18,774,924	19,445,756
At December 31	20,752,317	21,484,637
Current	1,939,806	6,837,884
Non-current	18,812,511	14,646,753

18a. Convertible loan note

On June 3, 2016, the Company issued 3,463,563 £1 unsecured convertible loan notes (“Novartis Notes”) to Novartis Pharma AG, a shareholder of the Company (see Note 26) in consideration for an investment in cash by Novartis at the time of the private placement on June 9, 2016. The Novartis Notes attract an interest rate of 4% per annum, accruing daily, and constitute direct, unsecured obligations of the Company ranking ahead of any other unsecured obligations of the Company.

On April 26, 2017 Novartis converted £1,398,553 of loan notes into 632,829 ordinary shares at the fixed conversion price of £2.21 per share. This has been recorded as a £1,187,974 reduction in interest-bearing loans and borrowings, a reduction in other capital reserves of £208,680 and a reduction in accumulated losses of £62,375. Under the terms of the notes, Novartis also received 588,532 bonus shares. Novartis holds £2,065,011 principal value of notes at December 31, 2017 representing 934,394 ordinary shares if converted, together with 864,988 potential bonus shares; together these represent 2.5% of the current share capital of the Company as at December 31, 2017.

In August 2017, in connection with the new loan agreements (see Note 18b), Novartis agreed to amend the terms of its Novartis Notes. Under the revised terms of the Novartis Notes, the loan is subordinated to the Silicon Valley Bank and Kreos Capital loan such that Novartis shall be entitled, at any time up to the repayment of the foregoing loan, being March 2, 2021, to serve a conversion notice on the Company to convert all or some only of the outstanding Novartis Notes into fully paid ordinary shares at a conversion price of £2.21 per share. To the extent the Novartis Notes are not converted at that date, the outstanding principal amount of the Novartis Notes, together with any accrued and unconverted interest, is redeemable. Upon conversion of any Novartis Notes, in addition to the relevant number of conversion shares, Novartis is entitled to receive an additional number of ordinary shares in the Company equal to the number of conversion shares into which such Novartis Notes are to convert, multiplied by 0.93, up to a maximum aggregate number of 864,988 such bonus shares.

The value of the debt component of the notes at the date of issue was calculated as £2,946,761. The cash flows attached to the note up to the maturity date were calculated and discounted at an appropriate venture debt rate of 10%. The carrying amount at December 31, 2018 is £2,038,881 (2017: £1,977,393). The Group has applied IFRS 9 Financial Instruments in full without restating comparatives with an initial date of application of January 1, 2018 (see Note 2.2).

The value of the equity component of the Notes at December 31, 2018 was calculated as £308,123 (2017: £308,123).

18b. Bank loan

On August 7, 2017, the Group entered into a loan agreement with Silicon Valley Bank and Kreos Capital V (UK) Limited, which provides for total borrowings of £20.0 million and the issue of warrants over shares in the Company (see Note 20). £10.0 million was drawn down on each of August 21, 2017 (Tranche 1) and December 29, 2017 (Tranche 2) for general working capital purposes. The Group was obligated to make interest-only payments on the loan amount until September 30, 2018, and thereafter the Group was obligated to pay interest and principal in 30 equal monthly instalments until March 31, 2021, the maturity date. The loan bore interest at an annual fixed rate equal to 9.0%. In addition, a final payment of 7.5% of the principal loan amount was due upon the earlier of the maturity date, prepayment in whole of the loan amount, mandatory repayment, acceleration of the loan, and the loan becoming immediately due and payable due to an event of default. The loan was secured by substantially all of the Group's assets, including intellectual property rights owned or controlled by the Group. The terms of the debt facility included an interest-only period to September 30, 2018, a 30-month capital and interest repayment period thereafter, a 9% headline interest rate and customary security over all assets of the Group.

The fair value of warrants issued as part of Tranche 1 on August 21, 2017 was £657,676. The fair value of the loan liability of Tranche 1 on August 21, 2017 was £9,342,324. Application of the effective interest method was required to accrete the initial loan liability value up to the face value of the loan at the end of the loan term. This non-cash interest charge was to be made in each statutory reporting period. The annual value of this interest charge was £182,133, which was an effective interest rate of 1.95%.

The fair value of warrants issued as part of Tranche 2 on December 29, 2017 was £634,335. The fair value of the loan liability of Tranche 2 on December 29, 2017 was £9,365,665. Application of the effective interest method was required to accrete the initial loan liability value up to the face value of the loan at the end of the loan term. This non-cash interest charge was to be made in each statutory reporting period. The annual value of this interest charge is £194,892, which was an effective interest rate of 2.08%.

On 30 September 2018 (the “modification date”), the Group and the lender signed a revised loan agreement (the “new loan”), with the intention that this would replace the old loan (with the proceeds of the new loan being used to settle the old loan). The new loan is viewed as a modification of the original loan because it was agreed with the same lenders as under the old loan and the old loan was not repayable at par with no penalty.

The new loan has a principal amount of £20,455,000 and will mature on March 1, 2021, unless extended on reaching certain milestones.

The Group is obligated to make interest-only payments on the loan amount until April 30, 2019, and thereafter the Group is obligated to pay interest and principal in 23 equal monthly instalments until March 31, 2021, the maturity date. The loan bears interest at an annual fixed rate equal to 8.5%. In addition, a final payment of 10.5% of the principal loan amount is due upon the earlier of the maturity date, prepayment in whole of the loan amount, mandatory repayment, acceleration of the loan, and the loan becoming immediately due and payable due to an event of default. The loan is secured by substantially all of the Group’s assets, including intellectual property rights owned or controlled by the Group. The terms of the debt facility include an interest-only period to April 30, 2019, a 23-month capital and interest repayment period thereafter, a 8.5% headline interest rate and customary security over all assets of the Group.

The modification loss is calculated as the difference in the present value of the cash flows under the original and modified terms.

The modification loss has been calculated accordingly in the amount of £730,037 and has been recognized in profit and loss as of the date of the modification.

The old loan was not derecognized; instead, at the point of modification, the carrying value of the loan was revised to reflect the new cash flows discounted by the original EIR as well as costs and fees incurred for the modification and any cash paid to or received from the lender under the terms of the new loan. Once the carrying amount of the liability was adjusted for costs and fees incurred as part of the modification, the EIR was recalculated to spread those costs and fees over the life of the modified liability.

On the modification date, the Group issued 225,974 additional warrants (“additional warrants”), for nil consideration, to the lender with the same key terms as the original warrants. The fair value of the additional warrants as of their grant date (30 September 2018) was £375,343.

The total carrying value of the loan at December 31, 2018 was £19,445,756 (2017: £18,774,924). £6,837,884 (2017: £1,939,806) is a current liability and £12,607,872 (2017: £16,835,118) is a non-current liability. A total of £781,998 (2017: £66,935) of non-cash interest has been charged to the statement of comprehensive loss in the period.

19. Provisions

	Year ended December 31	
	2017	2018
	(in £)	
Social security contributions on share options	2,288,386	**842,367**
Provision for deferred cash consideration	2,061,000	**2,131,000**
At December 31	4,349,386	**2,973,367**
Current	274,000	**332,014**
Non-current	4,075,386	**2,641,353**

Social security contributions on share options	Year ended December 31		
	2016	2017	2018
		(in £)	
At beginning of year	141,311	1,172,420	**2,288,386**
Accretion of discount	7,293	—	**—**
Arising during the year	1,084,181	1,115,966	**—**
Released	(60,365)	—	**(1,446,019)**
At December 31	1,172,420	2,288,386	**842,367**
Current	—	—	**—**
Non-current	1,172,420	2,288,386	**842,367**

The provision for social security contributions on share options is calculated based on the number of options outstanding at the reporting date that are expected to be exercised. The provision is based on the estimated gain arising on exercise of the share options, using the best estimate of the market price at the balance sheet date. Since the directors assume the options will be held for their full contractual life of ten years (see Note 25) the liability has been classified as non-current. The provision has been discounted. The negative charge in 2018 is due to the fall in the Company's share price between December 31, 2017 and December 31, 2018.

Provisions for deferred cash consideration	Year ended December 31		
	2016	2017	2018
		(in £)	
At beginning of year	—	—	**2,061,000**
Arising during the year	—	2,061,000	**—**
Increase in provision due to the unwinding of the time value of money	—	—	**443,000**
Decrease in provision due to a change in estimates relating to timelines and probabilities of contractual milestones being achieved (see Note 12)	—	—	**(373,000)**
At December 31	—	2,061,000	**2,131,000**
Current	—	274,000	**332,014**
Non-current	—	1,787,000	**1,798,986**

The deferred cash consideration is the estimate of the quantifiable but not certain future cash payment obligations due to AstraZeneca for the acquisition of certain assets (see Note 12). This liability is calculated as the risk-adjusted net present value of future cash payments to be made by the Group. The payments are dependent on reaching certain milestones based on the commencement

and outcome of clinical trials. The likelihood of achieving such milestones is reviewed at the balance sheet date and increased or decreased as appropriate.

20. Warrant liability

	Year ended December 31		
	2016	2017	2018
		(in £)	
At beginning of year	—	—	**1,346,484**
Arising during the year	—	1,292,011	**375,343**
Movement during the year	—	54,473	**(716,214)**
At December 31	—	1,346,484	**1,005,613**

As part of the bank loan facility (see Note 18b), 363,156 warrants to subscribe for shares were issued to the lenders on August 21, 2017. These warrants will be capable of exercise until August 7, 2027 at an exercise price of £3.029. A further 333,334 warrants were issued to the lenders on December 29, 2017. These warrants will be capable of exercise until August 7, 2027 at an exercise price of £3.30. A further 225,974 warrants were issued to the lenders on October 1, 2018. These warrants will be capable of exercise until October 1, 2028 at an exercise price of £2.31. The total of 922,464 warrants is equivalent to 1.30% of ordinary share capital at December 31, 2018.

The terms of the warrant instrument allow for a cashless exercise. In line with IAS 32, the future number of shares to be issued to the warrant holder under a cashless exercise can only be determined at that future date. At each balance sheet date, the fair value of the warrants will be assessed using the Black Scholes model taking into account appropriate amendments to inputs in respect of volatility and remaining expected life of the warrants.

The following table lists the weighted average inputs to the models used for the fair value of warrants granted during the year ended December 31:

	Year ended December 31	
	2017	2018
	(in £)	
Expected volatility (%)	50–51	65
Risk-free interest rate (%)	1.10–1.25	1.56
Expected life of share options (years)	9.6–10	10
Market price of ordinary shares (£)	3.00–3.25	2.31
Model used	Black Scholes	Black Scholes

The fair value of the warrants at grant was £1,667,353. At December 31, 2018 it was £1,005,612 (2017: £1,346,484).

Since there is no historical data in relation to the expected life of the warrants, the contractual life of the options was used in calculating the expense for the year.

Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective year equal to the expected life of the warrants.

21. Other liability

	Year ended December 31 2018 (in £)
At beginning of year	—
Arising during the year	**34,289**
At December 31	**34,289**

On October 8, 2018, the Group entered into a funding agreement with The Alpha-1 Project ("TAP"), which provides for total potential payments to Mereo of $400,000 as contributions towards the development of MPH-966 upon completion of certain milestones by the Group. In exchange, on receipt of such funding, the Group will issue warrants allowing TAP to subscribe for shares in the company (see Note 17). Under the agreement, TAP is potentially entitled to receive a payment equivalent to amounts received by Mereo (up to a maximum of $400,000) conditional on and within thirty days of the first regulatory approval received by the Group for MPH-966.

The first payment ("Payment 1") of $100,000 (£78,445) was made to Mereo on November 16, 2018. The fair value of the liability of Payment 1 on November 16, 2018 was £34,289. Application of the effective interest method is required to accrete the initial liability value up to the face value of the liability over a period of five years, being the estimate of the earliest date that the liability could be repaid and assuming that the agreement is not terminated earlier. This non-cash interest charge will be made in each statutory reporting period. The annual value of this interest charge is 25.8%.

The fair value of warrants issued as part of Payment 1 on November 16, 2018 was £44,156.

The total carrying value of the liability at December 31, 2018 was £34,289. £34,289 is a non-current liability.

22. Trade and other payables

	Year ended December 31	
	2017	2018
	(in £)	
Trade payables	2,860,303	**4,392,602**
Social security and other taxes	144,348	**160,719**
Other payables	19,375	**16,986**
At December 31	3,024,026	**4,570,307**

Terms and conditions of the above financial liabilities:

- trade payables are non-interest bearing and are normally settled on 30-day terms; and
- other payables are non-interest bearing and have an average term of one month.

23. Changes in liabilities arising from financing activities

	Bank loan	Novartis notes	Warrant liability	Deferred cash consideration (in £)	TAP Agreement	Total
January 1, 2018	18,774,924	1,977,393	1,346,484	2,061,000	—	24,159,801
Cash						
Net increase in bank loan	455,000	—	—	—	—	455,000
Increase in TAP funding	—	—	—	—	34,289	34,289
Interest payments	(1,644,610)	—	—	—	—	(1,644,610)
Bank loan transaction costs	(920,859)	—	—	—	—	(920,859)
Non-cash						
Bank modification loss	730,037	—	—	—	—	730,037
Fair value of additional warrants	(375,344)	—	—	70,000	—	(305,344)
Increase in warrant liability	—	—	375,344	—	—	375,344
Novartis Notes - amounts restated through retained earnings	—	(123,864)	—	—	—	(123,864)
Change in fair value warrant	—	—	(716,215)	—	—	(716,215)
Provision for deferred cash consideration	—	—	—	—	—	—
Interest accrual	1,644,610	—	—	—	—	1,644,610
Accreted interest	781,998	185,352	—	—	—	967,350
December 31, 2018	**19,445,756**	**2,038,881**	**1,005,613**	**2,131,000**	**34,289**	**24,655,539**

24. Financial and capital risk management and fair value measurement

24.1. Capital risk management

For the purpose of the Group's capital management, capital includes issued capital, share premium, the equity component of a convertible loan note and all other equity reserves attributable to the equity holders of the parent.

The Group's objectives when managing capital are to safeguard the ability to continue as a going concern and ensure that sufficient capital is in place to fund the Group's R&D activities. The Group's principal method of adjusting the capital available is through issuing new shares or arranging suitable debt financing, including any related warrants. The Group's share capital and share premium are disclosed in Note 17. The Group's loans are disclosed in Note 18. The Group monitors the availability of capital with regard to its committed and planned forecast future expenditure on an ongoing basis. The Group has set up an Employee Benefit Trust which makes market purchases of the Company's shares to provide some cover against future exercise of options under the Company's share option schemes (see Note 27).

24.2. Financial risk management objectives and policies

Monitoring of financial risk is part of the Board's ongoing risk management, the effectiveness of which is reviewed annually. Our agreed policies are implemented by the Chief Financial Officer, who

submits periodic reports to the Board. The Group seeks to maintain a balance between equity capital and convertible and secured debt to provide sufficient cash resources to execute the business plan. In addition, the Group maintains a balance between cash held on deposit and short-term investments in Sterling and other currencies to reduce its exposure to foreign exchange fluctuations in respect of its planned expenditure. During the year, in order to maintain a strong cash runway the Group completed an equity placing and arranged and drew down a new bank debt facility, which includes an initial interest-only period until September 2018.

Except for the bank loans and the existing convertible loan notes issued in 2016, the Group's principal financial instruments comprise trade payables which arise directly from its operations and are not designed as a means of raising finance for the Group's operations. The Group has various financial assets, such as receivables and cash and short-term deposits. The Group does not consider that its financial instruments gave rise to any material financial risks during the year to December 31, 2018.

Interest rate risk

The Group's policy in relation to interest rate risk is to monitor short and medium-term interest rates and to place cash on deposit for periods that optimize the amount of interest earned while maintaining access to sufficient funds to meet day-to-day cash requirements.

The interest payable on both the convertible loan note and bank loan is fixed. Consequently, there is no material exposure to interest rate risk in respect of interest payable.

Foreign currency risk

The Group currently has no revenue. The majority of operating costs are denominated in Sterling, Euros and U.S. Dollars (USD). Funding to date has been secured in a mixture of Sterling and USD (in respect of funding attributable to the merger with OncoMed) and therefore a level of natural hedging exists in respect of operating costs. Foreign exchange risk arises from commercial transactions and recognized assets and liabilities in foreign currencies.

Credit risks

The Group's policy is to place funds with financial institutions which have a minimum long-term credit rating with Standard & Poor's of A. The Group also allocates a quota to individual institutions in respect of cash deposits and also seeks to diversify its investments where this is consistent with achieving competitive rates of return. It is the Group's policy to place not more than £10 million with any one investment counterparty and no more than £5 million with any one cash deposit counterparty.

Cash flow and liquidity risk

Credit risk from balances with banks and financial institutions is managed by the Group's finance department in accordance with the Group's policy. Investments of surplus funds are made only with approved counterparties and within credit limits assigned to each counterparty. Counterparty credit limits are reviewed by the Group's Board of directors on an annual basis, and may be updated throughout the year subject to approval of the Group's Audit and Risk Committee. The limits are set to minimize the concentration of risks and therefore mitigate financial loss through a counterparty's potential failure to make payments.

The Group's maximum exposure to credit risk for the components of the balance sheet at December 31, 2018 is the carrying amounts.

The Group monitors its funding requirements through preparation of short-term, mid-term and long-term forecasts. All short-term deposits are immediately convertible to liquid funds without penalty and are recorded in the balance sheet at their open market value. Please refer to Note 2.3 regarding the directors' assessment of liquidity for further information.

24.3. Fair value hierarchy

		Fair value measurement using			
	Date of valuation	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Liabilities measured at fair value					
Provision for deferred cash consideration (Note 19)	December 31, 2018	£ 2,131,000	—	—	£ 2,131,000
Warrant liability (Note 20)	December 31, 2018	£ 1,005,613	—	—	£ 1,005,613
Liabilities for which fair values are disclosed					
Convertible loan (Note 18a)	December 31, 2018	£ 2,038,881	—	—	£ 2,038,881
Bank loan (Note 18b)	December 31, 2018	£19,445,756	—	—	£19,445,756
TAP funding liability (Note 21)	December 31, 2018	£ 34,289	—	—	£ 34,289

There were no transfers between Level 1 and Level 2 during 2018.

Fair value measurement hierarchy for liabilities as at December 31, 2017:

		Fair value measurement using			
	Date of valuation	Total	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Liabilities measured at fair value					
Provision for deferred cash consideration (Note 19)	December 31, 2017	£ 2,061,000	—	—	£ 2,061,000
Warrant liability (Note 20)	December 31, 2017	£ 1,346,484	—	—	£ 1,346,484
Liabilities for which fair values are disclosed					
Convertible loan (Note 18a)	December 31, 2017	£ 1,977,393	—	—	£ 1,977,393
Bank loan (Note 18b)	December 31, 2017	£18,774,924	—	—	£18,774,924

There were no transfers between Level 1 and Level 2 during 2017.

Set out below is a comparison, by class, of the carrying amounts and fair values of the Group's financial instruments:

	December 31, 2017		December 31, 2018	
	Carrying amount	Fair value	Carrying amount	Fair value
	(in £)			
Liabilities				
Provision for deferred cash consideration	2,061,000	2,061,000	2,131,000	2,131,000
Warrant liability	1,346,484	1,346,484	1,005,613	1,005,613

The management of the Group assessed that the fair values of cash and short-term deposits, other receivables, trade payables, and other current liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments.

The following methods and assumptions were used to estimate the fair values:

- The fair value of the provision for deferred cash consideration is estimated by discounting future cash flows using rates currently available for debt on similar terms and credit risk. In addition to being sensitive to a reasonably possible change in the forecast cash flows or the discount rate, the fair value of the deferred cash consideration is also sensitive to a reasonably possible change in the probability of reaching certain milestones. The valuation requires management to use unobservable inputs in the model, of which the significant unobservable inputs are disclosed in the tables below. Management regularly assesses a range of reasonably possible alternatives for those significant unobservable inputs and determines their impact on the total fair value.
- The warrant liability is estimated using the Black Scholes model taking into account appropriate amendments to inputs in respect of volatility, remaining expected life of the warrants, cost of capital, probability of success and rates of interest.

The significant unobservable inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy, together with a quantitative sensitivity analysis as at December 31, 2018 and 2017 are as shown below:

	Valuation technique	Significant unobservable inputs	Range weighted (average)	Sensitivity of the input to fair value
Provision for deferred cash consideration	DCF	WACC	2018: 15.3%	1% increase/(decrease) would result in a decrease/(increase) in fair value by £33,000.
		WACC	2017: 15.3%	1% increase/(decrease) would result in a decrease/(increase) in fair value by £30,000.
		Probability of success	2018: 28%-95%	10% increase/(decrease) would result in an increase/(decrease) in fair value by £600,000.
		Probability of success	2017: 28%-85%	10% increase/(decrease) would result in an increase/(decrease) in fair value by £600,000.
Warrant liability	Black Scholes	Risk-free interest rate	2018: 1.33%	1% increase/(decrease) would result in an increase/(decrease) of £25,000
		Risk-free interest rate	2017: 1.25%	1% increase/(decrease) would result in an increase/(decrease) of £46,000
		Volatility	2018: 65%	10% increase/(decrease) would result in an increase/(decrease) of £145,000
		Volatility	2017: 50%	10% increase/(decrease) would result in an increase/(decrease) of £200,000
		Remaining life	2018: 3,254 days	Increase/(decrease) of 365 days would result in an increase/(decrease) of £56,000
		Remaining life	2017: 3,519 days	Increase/(decrease) of 365 days would result in an increase/(decrease) of £54,000

The table below summarizes the maturity profile of the Group's financial liabilities based on contractual undiscounted payments at December 31, 2018:

	Payments due by period				
	Up to 1 year	1–3 years	3–5 years	Over 5 years	Total
			(in £)		
Novartis Notes	**82,600**	**2,161,642**	**—**	**—**	**2,244,242**
Bank loan	**8,260,337**	**15,589,137**	**—**	**—**	**23,849,474**
Operating lease (see Note 26)	**331,527**	**204,138**	**—**	**—**	**535,665**
	8,674,464	**17,954,917**	**—**	**—**	**26,629,381**

The table below summarizes our contractual obligations at December 31, 2017:

	Payments due by period				
	Up to 1 year	1–3 years	3–5 years	Over 5 years	Total
			(in £)		
Novartis Notes	**82,600**	**165,427**	**2,078,815**	**—**	**2,326,842**
Bank loan	**3,574,208**	**17,793,665**	**2,982,805**	**—**	**24,350,678**
Operating lease (see Note 26)	**743,858**	**535,203**	**—**	**—**	**1,279,061**
	4,400,666	**18,494,295**	**5,061,620**	**—**	**27,956,581**

The Group may incur potential payments upon achievement of clinical, regulatory and commercial milestones, as applicable, or royalty payments that may be required to be made under license agreements the Group entered into with various entities pursuant to which the Group has in-licensed certain intellectual property, including license agreements with Novartis and AstraZeneca. Due to the uncertainty of the achievement and timing of the events requiring payment under these agreements, the amounts to be paid are not fixed or determinable at this time.

25. Share-based payments

The charge for share-based payments under IFRS 2 arises across the following schemes:

	Year ended December 31,		
	2016	2017	2018
		(in £)	
2015 Plan	6,185,067	2,441,671	805,738
Mereo BioPharma Group plc Share Option Plan	—	586,291	1,064,217
Long Term Incentive Plan	133,601	298,287	319,338
Deferred Bonus Share Plan	175,350	325,649	—
	6,494,018	3,651,898	2,189,293

The 2015 Plan

Under the Mereo BioPharma Group Limited Share Option Plan (the "2015 Plan"), the Group, at its discretion, granted share options to employees, including executive management, and NEDs. Share options vest over four years for executive management and employees and over three years for NEDs. There are no performance conditions attached to the options issued under the Option Plan. The fair value of share options granted was estimated at the date of grant using a Black Scholes pricing model, taking into account the terms and conditions upon which the share options were granted. The fair value calculation does not include any allowance for dividends as the Company has no available profits for distribution.

The exercise price of the share options will be equal to the market price of the underlying shares on the date of grant, less a discount agreed with the Group's institutional investors. The contractual term of the share options is ten years.

Of the £6,185,067 expense recognized under the option plan for employee services received during 2016, £298,836 is an accelerated charge relating to 500,000 options which were cancelled on June 9, 2016.

No share options were issued during the year under the 2015 Share Plan.

Movements during the year

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, options for the 2015 Plan during the year:

	2016		2017		2018	
	Number	WAEP £	Number	WAEP £	Number	WAEP £
Outstanding at beginning of the year	8,964,394	1.29	9,198,655	1.32	**9,124,610**	**1.32**
Granted during the year	1,316,117	1.49	—	—	**—**	**—**
Cancelled during the year	(500,000)	1.29	—	—	**—**	**—**
Forfeited during the year	(581,856)	1.29	(74,045)	1.29	**(46,255)**	**1.29**
Exercised during the year	—	—	—	—	**(95,222)**	**1.29**
Outstanding at December 31	9,198,655	1.32	9,124,610	1.32	**8,983,133**	**1.32**
Exercisable at December 31	3,115,337	1.29	5,655,676	1.31	**8,007,029**	**1.31**

The weighted average remaining contractual life for the share options outstanding as at December 31, 2018 was 6.6 years (2017: 7.6 years; 2016: 8.3 years).

The weighted average fair value of options granted during 2016 was £1.29. There were no options granted in 2017.

Options outstanding at the end of the year had an exercise price of between £1.29 and £2.21.

The following tables list the weighted average inputs to the models used for the fair value of share options granted during the years ended December 31, 2016, 2017 and 2018:

	Year ended December 31		
	2016	2017	2018
	(in £)		
Expected volatility (%)	56	—	—
Risk-free interest rate (%)	1.48-2.07	—	—
Expected life of share options (years)	10	—	—
Market price of ordinary shares (£)	1.84-2.21	—	—
Model used	Black Scholes	—	—

Since there is no historical data in relation to the expected life of the share options the contractual life of the options was used in calculating the expense for the year.

Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective year equal to the expected life of the share options.

The Mereo BioPharma Group plc Share Option Plan

The Mereo BioPharma Group plc Share Option Plan ("Share Option Plan") provides for the grant of options to acquire our ordinary shares to employees, executive directors and executive officers. Options may be granted to all eligible employees on commencement of employment and may be granted on a periodic basis after that. Under the Share Option Plan, our Board of directors may determine if the vesting of an option will be subject to the satisfaction of a performance condition. With regard to an option which is subject to satisfaction of a performance condition, the option will normally vest on the later of: (i) the date on which our Board of directors determines that the performance condition has been satisfied; and (ii) the third anniversary of the date of grant. With regard to an option which is not subject to the satisfaction of a performance condition, the option will normally vest on the third anniversary of the date of grant, or such other date determined by our Board of directors and notified to the participant. Once an option has vested, it may be exercised during the period ending on the tenth anniversary of the date of grant, after which time it will lapse. The exercise price of an option may not be less than the greater of: (i) the market value of a share on the date of grant; or (ii) if the shares are to be subscribed, the nominal value of a share. Options are not currently subject to performance conditions other than continued service with us and typically vest on the third anniversary of the date of grant, after which they remain exercisable generally until the tenth anniversary of the grant date. Our Board of directors may determine that an option be settled in cash or by net exercise of the option.

Movements during the year

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, options for the Option Plan during the year:

	2016		2017		2018	
	Number	WAEP £	Number	WAEP £	Number	WAEP £
Outstanding at beginning of the year	—	—	—	—	**1,578,188**	**3.05**
Granted during the year	—	—	1,593,188	3.05	**388,000**	**3.14**
Cancelled during the year	—	—	—	—	**—**	**—**
Forfeited during the year	—	—	(15,000)	3.03	**(84,633)**	**3.03**
Outstanding at December 31	—	—	1,578,188	3.05	**1,881,555**	**3.10**
Exercisable at December 31	—	—	—	—	**—**	**—**

The weighted average remaining contractual life for the share options outstanding as at December 31, 2018 was 8.6 years (2017: 9.4 years).

The weighted average fair value of options granted during the year was £2.29 (2017: £1.85).

Options outstanding at the end of the year had an exercise price of between £2.76 and £3.23.

The following tables list the weighted average inputs to the models used for the fair value of share options granted during the years ended December 31:

	Year ended December 31		
	2016	2017	2018
		(in £)	
Expected volatility (%)	—	49-51	**65-67**
Risk-free interest rate (%)	—	1.06-1.33	**1.39-1.53**
Expected life of share options (years)	—	10	**10**
Market price of ordinary shares (£)	—	3.03-3.23	**2.76-3.25**
Model used	—	Black Scholes	**Black Scholes**

Since there is no historical data in relation to the expected life of the share options, the contractual life of the options was used in calculating the expense for the year.

Volatility was estimated by reference to the share price volatility of a group of comparable companies over a retrospective period equal to the expected life of the share options.

Long Term Incentive Plan

Under the Company's Long Term Incentive Plan ("LTIP"), initiated in 2016, the Group, at its discretion, may grant nil-cost options to acquire shares to employees. Under the LTIP rules, vesting of 75% of the options issued to employees is subject to a share price performance condition (the "Share Price Element") and vesting of 25% of the options is subject to achievement of strategic operational targets (the "Strategic Element"). Share options vest over a maximum of five years, dependent upon achievement of these targets.

The fair value of the LTIP Share Price Element is estimated at the date of grant using a Monte Carlo pricing model, taking into account the terms and conditions upon which the share options were granted.

The fair value of the LTIP Strategic Element is estimated at the date of grant using a Black Scholes pricing model, taking into account the terms and conditions upon which the share options were granted, and the expense recorded is based upon the expected level of achievement of strategic targets.

The fair value calculations do not include any allowance for dividends as the Company has no available profits for distribution.

The contractual term of the LTIP options is five years.

The expense recognized for employee services received during the year to December 31, 2018 was £319,338 (2017: £298,287).

Movements during the year

The following table illustrates the number of, and movements in, LTIP options during the year:

	2016 Number	2017 Number	2018 Number
Granted during the year	1,199,658	185,950	—
Cancelled during the year	—	—	—
Forfeited during the year	(234,162)	—	—
Outstanding at December 31	965,496	1,151,446	**1,151,446**
Exercisable at December 31	—	—	—

The weighted average remaining contractual life for the LTIP options outstanding as at December 31, 2018 was 1.8 years (2017: 2.9 years; 2016: 3.7 years).

The weighted average fair value of LTIP options granted during the year to December 31, 2018 was £nil (2017: £1.99; 2016: £1.21).

The following tables list the weighted average inputs to the models used for the fair value of LTIP options granted during the years ended December 31:

LTIP Share Price Element

	Year ended December 31		
	2016	2017	2018
Expected volatility (%)	48.9	51.7	—
Risk-free interest rate (%)	0.48-0.74	0.17-0.39	—
Expected life of share options (years)	3-5	3-5	—
Market price of ordinary shares (£)	2.21	3.03	—
Model used	Monte Carlo	Monte Carlo	—

LTIP Strategic Element

	Year ended December 31		
	2016	2017	2018
Expected volatility (%)	48.9	51.7	—
Risk-free interest rate (%)	0.74	0.39	—
Expected life of share options (years)	5	5	—
Market price of ordinary shares (£)	2.21	3.03	—
Model used	Black Scholes	Black Scholes	—

Since there is no historical data in relation to the expected life of the LTIP options, the contractual life of the options has been used in calculating the expense for the year.

Volatility is estimated by reference to the share price volatility of a group of comparable companies over a retrospective period equal to the expected life of the LTIP options.

Deferred Bonus Share Plan

Under the previous terms of the Company's Deferred Bonus Share Plan (DBSP), 30% of the annual bonus for 2017 for the senior management team was payable in deferred shares, which are governed by the DBSP plan rules. At the date of grant of the awards, the monetary bonus amount will be divided by the closing share price to give the number of shares issued to the employee under the DBSP. The number of shares is fixed and not subject to adjustment between the issue date and vesting date. Under the DBSP, awards vest after three years from the date of the award. There are no further performance conditions attached to the award, nor any service conditions (including no requirement for continued employment once the awards have been made). The plan does allow for adjustment of awards in the event of a material misstatement of Mereo's accounts or fraud or misconduct on the part of an individual. The plan also allows for adjustment of awards in the event there was an error in calculating the vesting of the awards. Since the awards are issued at nil cost they will be satisfied by the issue of shares from the Employee Benefit Trust.

The following table illustrates the number of, and movements in, DBSP options during the year:

	2016 Number	2017 Number	2018 Number
Outstanding at January 1	—	62,180	**163,000**
Awarded during the year	62,180	100,820	**—**
Granted during the year	—	—	**—**
Outstanding at December 31	62,180	163,000	**163,000**
Exercisable at December 31	—	—	**—**

The weighted average remaining contractual life for the DBSP options outstanding as at December 31, 2018 was 2.6 years (2017: 3.6 years; 2016: 4 years).

The weighted average fair value of DBSP options granted during the year was £nil (2017: £3.23; 2016: £2.80).

On January 18, 2019 the Board approved an amendment to the terms of the Deferred Bonus Share Plan and the terms were amended such that in the event that the Board decides to award a bonus to eligible participants in respect of performance for any given financial year, 30% of the bonus (after deduction of income tax and employee's National Insurance contributions) must be used to purchase ordinary shares in the Company within 12 months. Following a purchase, the relevant ordinary shares must be held for a period of at least two years. Bonus awards made in respect of 2018 were awarded under these revised terms.

The Mereo 2019 Equity Incentive Plan (The 2019 EIP)

On April 4, 2019 the Company established The Mereo 2019 Equity Incentive Plan. Under the plan it is anticipated that market value options will be granted to executives and other employees with a four-year vesting period and no performance conditions. No grants have been made under this plan as at the date of this report. The plan provides a framework for the grant of market value options and/or restricted stock unit awards to officers of the Company (or of any subsidiary).

The Mereo 2019 NED Equity Incentive Plan (The 2019 NED EIP)

On April 4, 2019 the Company established The Mereo 2019 NED Equity Incentive Plan. Under the plan it is anticipated that market value options will be granted to non-executive directors with no performance conditions. Options to existing non-executive directors will be granted with a one-year vesting period and options to newly appointed non-executive directors will be granted with a three-year vesting period. No grants have been made under this plan as at the date of this report. The plan provides a framework for a range of different types of share related awards (including market value options, share appreciation rights, restricted stock and restricted stock units).

Deferred equity consideration

In October 2017, our wholly owned subsidiary Mereo BioPharma 4 Limited entered into an exclusive license and option agreement (the "License Agreement"), to obtain from AstraZeneca an exclusive worldwide, sub-licensable license under AstraZeneca's intellectual property rights relating to MPH-966, with an option to acquire such intellectual property rights following commencement of a pivotal trial and payment of related milestone payments (the "Option"), together with the acquisition of certain related assets.

Under the agreement with AstraZeneca, the Company may issue up to 1,349,693 ordinary shares which are dependent on achieving certain milestones.

In respect of milestones that are probable, the Group has accounted for, but not yet issued, 429,448 ordinary shares which have been measured at fair value, being £3.10, giving a total of £1,331,288.

26. Commitments and contingencies

Operating lease commitments—Group as lessee

Future minimum rentals payable under non-cancellable operating leases as at December 31, 2018 are as follows:

	Year ended December 31,	
	2017	2018
Within one year	743,858	**331,527**
After one year but not more than three years	535,203	**204,138**
After one year but not more than five years	—	**—**
More than five years	—	**—**
	1,279,061	**535,665**

The Group has entered into a lease for its premises at Fourth Floor, 1 Cavendish Place, London W1G 0QF. The term of the lease agreement is from August 17, 2015 through to August 16, 2025. The total lease expense for the year ended December 31, 2018 was £293,328 (2017: £293,328).

The premises comprise approximately 4,000 sq ft. The principal rent for the premises is £162,960 per annum through December 16, 2016 and £325,920 per annum thereafter, subject to an increase on August 17, 2020 based on the open market value of the premises (the “Principal Rent”). In addition to the Principal Rent, the Group is responsible for value-added tax on the Principal Rent and certain insurance costs and service charges incurred by the landlord.

The Group may break the lease agreement on August 16, 2020 by providing six months’ prior written notice to the landlord. If the Group does not exercise its break option, the landlord will decrease by 50% the Principal Rent for the period from August 16, 2020 through to April 15, 2021.

The Group has entered into a lease for six high-resolution peripheral quantitative computed tomography (HRpQCT) scanners for use in its ongoing clinical studies.

Each scanner has a lease term of 12 months from the date on which delivery of that scanner occurred. The Company has the right to extend the lease period for a further six months at any point during the lease term. This option may be exercised in respect of any of the individual scanners and does not have to be exercised in respect of all the scanners.

Finance leases—Group as lessee

The Group did not have any leasing arrangements classified as finance leases at December 31, 2018 (2017: £nil).

Financial commitments

Each of Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited and Mereo BioPharma 3 Limited issued to Novartis loan notes (the “Novartis Notes”) (which were assigned by Novartis to the

Company in exchange for ordinary shares pursuant to the Subscription Agreement) and each of Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited and Mereo BioPharma 3 Limited agreed to make future payments to Novartis comprising amounts equal to ascending specified percentages of tiered annual worldwide net sales (beginning at high single digits and reaching into double digits at higher sales) by such subsidiary of products that include the assets acquired. The levels of ascending percentages of tiered annual worldwide net sales are the same for each of Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited and Mereo BioPharma 3 Limited under the respective Purchase Agreements.

Each of Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited and Mereo BioPharma 3 Limited further agreed that in the event it transfers, licenses, assigns or leases all or substantially all of its assets, it will pay Novartis a percentage of the proceeds of such transaction. The Company will retain the majority of the proceeds from such a transaction. Such percentage is the same for each of Mereo BioPharma 1 Limited, Mereo BioPharma 2 Limited and Mereo BioPharma 3 Limited under the respective Purchase Agreements. The payment of a percentage of proceeds is not payable with respect to any transaction involving equity interests of Mereo BioPharma Group plc, a merger or consolidation of Mereo BioPharma Group plc, or a sale of any assets of Mereo BioPharma Group plc.

In October 2017, the Group's wholly owned subsidiary Mereo BioPharma 4 Limited entered into an exclusive license and option agreement (the "License Agreement"), to obtain from AstraZeneca an exclusive worldwide, sub-licensable license under AstraZeneca's intellectual property rights relating to MPH-966, with an option to acquire such intellectual property rights following commencement of a pivotal trial and payment of related milestone payments (the "Option"), together with the acquisition of certain related assets. Upon entering into the License Agreement, the Group made a payment of $3.0 million and issued 490,798 ordinary shares to AstraZeneca, for an aggregate upfront payment equal to $5.0 million. In connection with certain development and regulatory milestones, the Group has agreed to make payments of up to $115.5 million in the aggregate and issue additional ordinary shares to AstraZeneca for licensed products containing MPH-966. In addition, the Group has agreed to make payments to AstraZeneca based on specified commercial milestones of the product. The Group has also agreed to pay a specified percentage of sub-licensing revenue to AstraZeneca and to make royalty payments to AstraZeneca equal to ascending specified percentages of tiered annual worldwide net sales by the Group of licensed products (subject to certain reductions), ranging from the high single digits to low double digits. Royalties will be payable on a licensed-product-by-licensed-product and country-by-country basis until the later of ten years after the first commercial sale of such licensed product in such country and expiration of the last patent covering such licensed product in such country that would be sufficient to prevent generic entry. Under the License Agreement, the Group may freely grant sub-licenses to affiliates upon notice to AstraZeneca and must obtain AstraZeneca's consent, which is not be unreasonably withheld, to grant sub-licenses to a third party. The Group has agreed to use commercially reasonable efforts to develop and commercialize at least one licensed product.

The License Agreement will expire on the expiry of the last-to-expire royalty term with respect to all licensed products. Upon the expiration of the royalty term for a licensed product in a particular country, the licenses to the Group for such product in such country will become fully paid and irrevocable. Prior to exercise of the Option, if at all, the Group may terminate the License Agreement upon prior written notice. Either party may terminate the agreement upon prior written notice for the other party's material breach that remains uncured for a specified period of time or insolvency. AstraZeneca has agreed to a three-year non-competition restriction in relation to the direct or indirect commercialization or development of NE inhibitors for the treatment of AATD. In addition, AstraZeneca agreed not to assert any AstraZeneca intellectual property rights that were included in the scope of the License Agreement against the Group.

27. Related party disclosures

The following transactions have been entered into with related parties for the year ended December 31, 2017 and 2018.

Novartis Pharma AG ("Novartis") holds shares in the Company at December 31, 2016. On June 3, 2016, the Group issued 3,463,563 £1 unsecured convertible loan notes (the "Novartis Notes") to Novartis and received £3,463,563 from Novartis in consideration (Note 18a).

The Group purchased goods and services from Novartis in the year as set out below:

	Year ended December 31,		
	2016	2017	2018
Manufacture and supply of clinical trial material	968,219	4,610,106	**60,027**

The amount outstanding to be paid to Novartis at December 31, 2018 was £nil (2017: £nil; 2016: £35,249).

The purchases from related parties are made on terms equivalent to those that prevail in arm's length transactions.

Employee Benefit Trust

In 2016 the Company set up an Employee Benefit Trust for the purposes of buying and selling shares on the employees' behalf.

A total of £325,000 of funding was paid into the Trust by the Company during the year ended December 31, 2018 (2017:£nil).

A total of 163,000 shares were purchased by the Trust during the year ended December 31, 2018 (2017: nil). As at December 31, 2018 a cash balance of £21,762 (2017: £3,600) was held by the Trust.

28. Standards issued but not yet effective

The standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these standards, if applicable, when they become effective.

Other standards

The following standards and interpretations, applicable for annual periods beginning on or after January 1, 2017, are not expected to have any impact on the results of the Group or the presentation of the financial statements:

- IFRS 10 Consolidated Financial Statements—Amendments regarding the sale or contribution of assets between an investor and its associate or joint venture and amendments regarding the application of the consolidation exception.
- IFRS 11 Joint Arrangements—Amendments regarding the accounting for acquisitions of an interest in a joint operation.
- IFRS 12 Disclosure of Interests in Other Entities—Amendments regarding the application of the consolidation exception.

- IFRS 14 Regulatory Deferral Accounts.
- IAS 1 Presentation of Financial Statements—Amendments resulting from the disclosure initiative.
- IAS 7 Statement of Cash Flows—Amendments resulting from the disclosure initiative.
- IAS 12 Income Taxes—Amendments to recognition of deferred tax assets for unrealized losses.
- IAS 16 Property, Plant and Equipment—Amendments regarding the clarification of acceptable methods of depreciation and amortization and amendments bringing bearer plants into the scope of IAS 16.
- IAS 27 Separate Financial Statements (as amended in 2011)—Amendments reinstating the equity method as an accounting option for investments in subsidiaries, joint ventures and associates in an entity's separate financial statements.
- IAS 28 Investments in Associates and Joint Ventures—Amendments regarding the application of the consolidation exception.
- IAS 38 Intangible Assets—Amendments regarding the clarification of acceptable methods of depreciation and amortization.
- IAS 41 Agriculture—Amendments bringing bearer plants into the scope of IAS 16.
- Amendments resulting from September 2014 Annual Improvements to IFRSs:
  - IFRS 2 Classification and Measurement of Share-based Payment Transactions.
  - IFRS 5 Non-current Assets Held for Sale and Discontinued Operations.
  - IFRS 7 Financial Instruments: Disclosures.
  - IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration.
  - IAS 19 Employee Benefits.
  - IAS 34 Interim Financial Reporting.

29. Event after the reporting period

(a) On February 8, 2019, Dr. Frank Armstrong resigned as a non-executive director of the Group.

(b) On April 23, 2019 the Group agreed an amendment to the terms of its bank loan with the lenders. The new terms extended the interest-only period to December 31, 2019 followed by a 15-month capital and interest repayment period. The Group has undertaken a preliminary assessment under IFRS 9 and determined it to be a non-substantial modification.

Following completion of the merger with OncoMed, under the terms of the loan agreement, Mereo expects to issue approximately 321,444 additional warrants to its lenders giving them the right to subscribe for ordinary shares at an exercise price of £2.95.

(c) On April 23, 2019, Mereo completed the acquisition of OncoMed, a clinical-stage biopharmaceutical company whose shares were previously traded on NASDAQ. Mereo acquired 100% of the voting equity interests declared, and OncoMed will continue as a wholly-owned indirect subsidiary of Mereo. The Mereo Board believes that the combination of Mereo's biopharmaceutical portfolio of four assets with OncoMed's two lead assets will create a diversified combined portfolio, resulting in an increased number of potential near-term catalysts with a core focus remaining on

Mereo's strategy to target rare diseases, and that the cash position of the Combined Company will provide an extended operational runway, with the potential for such runway to be extended significantly further through partnering deals.

The initial consideration for the purchase amounted to £40,892,478 in the form of 24,783,320 ordinary shares. The fair value of the ordinary shares issued was measured using the closing market price of Mereo's ordinary shares at the acquisition date. Further amounts may be payable the former owners of OncoMed governed by the terms of an agreed Contingent Value Rights (CVR) agreement. The CVR represents the non-transferable contractual right for previous shareholders in OncoMed, Inc. to receive certain share and cash payments from Mereo if specified milestones are achieved within agreed time periods. The CVR milestone relates to OncoMed's etigilimab (anti-TIGIT, OMP-313M32) and navicixizumab (anti-DLL4/VEGF, OMP-305B83) therapeutic candidates. The contingent payments become payable upon the achievement of the milestones as follows:

The TIGIT milestone

A payment, in the form of Mereo ADSs, will be made to CVR holders if, prior to December 31, 2019, the following milestone is achieved:

- Celgene exercises the exclusive option granted by OncoMed to Celgene in relation to OncoMed's OMP-313M32 product pursuant to the Master Research and Collaboration Agreement by and among Celgene and OncoMed, dated December 2, 2013; and
- The receipt by OncoMed of the initial $35 million cash milestone payment due from Celgene pursuant to such Celgene option exercise.

If the TIGIT milestone is achieved, holders of CVRs would be entitled to receive a number of Mereo ADSs equal to the $35 million cash milestone payment received net of any tax and other reasonable expenses, divided by the volume-weighted average price per Mereo ADS for the 10-trading day period immediately following the date of the announcement by Mereo of the receipt of such cash payment. The TIGIT milestone payment is subject to a share consideration cap, such that the number of Mereo shares underlying the Mereo ADSs to be issued pursuant to the CVR agreement, when aggregated with the number of Mereo shares underlying the Mereo ADSs issued as share consideration pursuant to the merger agreement, cannot exceed 40% of the enlarged Group after issuing the consideration shares.

The NAVI milestones

A cash payment will be made to CVR holders if, within 18 months following the closing of the merger, Mereo or any of its subsidiaries enters into a definitive agreement with one or more third parties regarding the OMP-305B83 products and, within five years of the closing of the merger, Mereo or any of its subsidiaries receives eligible cash milestone payments. If a NAVI milestone is achieved, holders of CVRs would be entitled to receive an amount in cash equal to 70% of the amount of such eligible cash milestone payment, net of any tax and other reasonable expenses. The NAVI milestone payments are subject to a cash consideration cap, pursuant to which the aggregate principal amount of all cash payments made to holders of CVRs by Mereo shall in no case exceed $79.7 million.

We have estimated that the fair value of the deferred consideration is immaterial and have not provided for any amount payable.

We are finalizing the purchase price allocation and have determined a preliminary estimate of the fair value of the intangible assets acquired of £14.5 million. We acquired cash and cash equivalents, and short-term investments at completion of $50.8 million.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of OncoMed Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of OncoMed Pharmaceuticals, Inc. (the Company) as of December 31, 2018 and 2017, the related statements of operations, comprehensive loss, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 7, 2019 expressed an unqualified opinion thereon.

Adoption of ASU No. 2014-09

As discussed in Note 2 to the financial statements, the Company changed its method for recognizing revenue as a result of the adoption of Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606), effective January 1, 2018.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2005.

Redwood City, California
March 7, 2019

OncoMed Pharmaceuticals, Inc.

Balance Sheets
(In thousands, except share and per share data)

	December 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 9,686	$ 13,277
Short-term investments	47,659	89,814
Accounts receivable and other receivables	3,026	405
Prepaid and other current assets	1,913	1,709
Assets held for sale	1,443	—
Total current assets	63,727	105,205
Property and equipment, net	623	3,275
Other assets	728	1,842
Total assets	$ 65,078	$ 110,322
Liabilities and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 1,787	$ 2,565
Accrued liabilities	4,368	3,940
Accrued clinical liabilities	2,736	4,434
Current portion of deferred revenue	3,697	82,193
Current portion of deferred rent	56	—
Total current liabilities	12,644	93,132
Deferred revenue, less current portion	—	61,645
Deferred rent, less current potion	4,103	3,765
Noncurrent income tax payable	—	383
Other liabilities	100	—
Total liabilities	16,847	158,925
Commitments and contingencies (Note 7)		
Stockholders' equity (deficit):		
Preferred stock, $0.001 par value; 5,000,000 shares authorized at December 31, 2018 and 2017; no shares issued and outstanding at December 31, 2018 and 2017	—	—
Common stock, $0.001 par value; 145,000,000 shares authorized at December 31, 2018 and 2017; 38,660,146 and 38,212,505 shares issued and outstanding at December 31, 2018 and 2017, respectively	38	38
Additional paid-in capital	410,008	403,077
Accumulated other comprehensive (loss) income	(29)	289
Accumulated deficit	(361,786)	(452,007)
Total stockholders' equity (deficit)	48,231	(48,603)
Total liabilities and stockholders' equity (deficit)	$ 65,078	$ 110,322

See accompanying notes to the financial statements.

OncoMed Pharmaceuticals, Inc.

Statements of Operations
(In thousands, except share and per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenue:			
Collaboration revenue	$ 44,421	$ 36,016	$ 21,277
Other revenue	—	2,138	3,876
Total revenue	44,421	38,154	25,153
Operating expenses:			
Research and development	34,443	59,839	109,713
General and administrative	18,172	16,761	18,827
Restructuring charges	1,851	2,527	—
Total operating expenses	54,466	79,127	128,540
Loss from operations	(10,045)	(40,973)	(103,387)
Interest and other income, net	1,562	828	299
Loss before income taxes	(8,483)	(40,145)	(103,088)
Income tax provision (benefit)	(382)	(1,083)	14
Net loss	$ (8,101)	$ (39,062)	$ (103,102)
Net loss per common share, basic and diluted	$ (0.21)	$ (1.04)	$ (3.14)
Shares used to compute net loss per common share, basic and diluted	38,442,994	37,631,348	32,859,554

See accompanying notes to the financial statements.

OncoMed Pharmaceuticals, Inc.

Statements of Comprehensive Loss
(In thousands)

	Year Ended December 31,		
	2018	2017	2016
Net loss	$(8,101)	$(39,062)	$(103,102)
Other comprehensive income (loss):			
Unrealized gain (loss) on available-for-sale securities, net of tax	(318)	29	240
Total comprehensive loss	$(8,419)	$(39,033)	$(102,862)

See accompanying notes to the financial statements.

OncoMed Pharmaceuticals, Inc.

Statements of Stockholders' Equity (Deficit)
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive (Loss) Income	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balances at December 31, 2015	30,116,633	$ 30	$313,344	$ 20	$ (309,843)	$ 3,551
Issuance of common stock upon public offering, net of offering costs	6,325,000	7	59,163	—	—	59,170
Issuance of common stock under At-the-Market Agreement, net of offering costs	388,166	—	4,739	—	—	4,739
Issuance of common stock related to stock incentive plans	284,790	—	1,243	—	—	1,243
Stock-based compensation	—	—	11,131	—	—	11,131
Net unrealized gain on available-for-sale securities	—	—	—	240	—	240
Net loss	—	—	—	—	(103,102)	(103,102)
Balances at December 31, 2016	37,114,589	37	389,620	260	(412,945)	(23,028)
Issuance of common stock under At-the-Market Agreement, net of offering costs	355,821	—	1,701	—	—	1,701
Issuance of common stock related to stock incentive plans	742,095	1	2,342	—	—	2,343
Stock-based compensation	—	—	9,414	—	—	9,414
Net unrealized gain on available-for-sale securities	—	—	—	29	—	29
Net loss	—	—	—	—	(39,062)	(39,062)
Balances at December 31, 2017	38,212,505	$ 38	$403,077	$ 289	$ (452,007)	(48,603)
Adoption of ASU 2014-09, Revenue from Contracts with Customers (Topic 606)	—	—	—	—	98,322	98,322
Issuance of common stock related to stock incentive plans	447,641	—	89	—	—	89
Stock-based compensation	—	—	6,842	—	—	6,842
Net unrealized loss on available-for-sale securities	—	—	—	(318)	—	(318)
Net loss	—	—	—	—	(8,101)	(8,101)
Balances at December 31, 2018	38,660,146	$ 38	$410,008	$ (29)	$ (361,786)	$ 48,231

See accompanying notes to the financial statements.

OncoMed Pharmaceuticals, Inc.

Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2018	2017	2016
Operating activities			
Net loss	$ (8,101)	$ (39,062)	$(103,102)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,691	1,710	1,764
Stock-based compensation	6,842	9,414	11,131
Changes in operating assets and liabilities:			
Accounts receivable and other receivables	(19)	2,110	68,184
Income tax refund receivable	—	(1,098)	—
Prepaid and other current assets	(204)	786	782
Other assets	1,114	684	379
Accounts payable	(778)	(2,325)	(1,770)
Accrued liabilities, income tax payable and other liabilities	318	(4,572)	(3,115)
Accrued clinical liabilities	(1,698)	(17,420)	9,633
Deferred revenue	(44,421)	(36,045)	(21,272)
Deferred rent	394	848	450
Net cash used in operating activities	(44,862)	(84,970)	(36,936)
Investing activities			
Purchases of property and equipment	(655)	(585)	(1,158)
Purchases of short-term investments	(82,305)	(127,376)	(207,283)
Maturities of short-term investments	124,142	185,211	178,738
Net cash provided by (used in) investing activities	41,182	57,250	(29,703)
Financing activities			
Proceeds from issuance of common stock related to the exercise of options and employee stock plan purchases	89	2,343	1,239
Net proceeds from issuance of common stock under At-the-market Agreement	—	1,701	4,739
Net proceeds from issuance of common stock upon public offering	—	—	59,170
Net cash provided by financing activities	89	4,044	65,148
Net decrease in cash and cash equivalents	(3,591)	(23,676)	(1,491)
Cash and cash equivalents at beginning of year	13,277	36,953	38,444
Cash and cash equivalents at end of year	$ 9,686	$ 13,277	$ 36,953
Supplemental cash flow information:			
Accrued liabilities for purchase of property and equipment	$ —	$ 173	$ 244

See accompanying notes to the financial statements.

OncoMed Pharmaceuticals, Inc.

Notes to the Financial Statements

1. Organization

OncoMed Pharmaceuticals, Inc. (“OncoMed”, the “Company”, “us”, “we”, or “our”) is a clinical-stage biopharmaceutical company focused on developing novel therapeutics that address the fundamental biology driving cancer’s growth, resistance, recurrence and metastasis. The Company currently has two therapeutic candidates in active clinical development targeting pathways regulating cancer, including cancer stem cell, or CSC, pathways or immuno-oncology. The Company’s operations are based in Redwood City, California and it operates in one segment.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company’s financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”).

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, preclinical study and clinical trial accruals, fair value of assets and liabilities, stock-based compensation, restructuring charges and income taxes. Management bases its estimates on historical experience and on various other market-specific and relevant assumptions that management believes to be reasonable under the circumstances. Actual results may differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of 90 days or less at the date of purchase to be cash and cash equivalents.

Short-Term Investments

Short-term investments consist of debt securities classified as available-for-sale and have maturities greater than 90 days, but less than 365 days from the date of acquisition. Short-term investments are carried at fair value based upon quoted market prices. Unrealized gains and losses on available-for-sale securities are excluded from earnings and were reported as a component of accumulated other comprehensive income. The cost of available-for-sale securities sold is based on the specific-identification method.

Other Comprehensive (Loss) Income

Other comprehensive (loss) income includes certain changes in equity from non-owner sources that are excluded from net loss, specifically, unrealized gains and losses on available-for-sale investments and the related tax impact.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and short-term investments. Cash and short-term investments are

invested through banks and other financial institutions in the United States. Such deposits may be in excess of insured limits. The Company maintains cash and investments with various high credit quality and capitalized financial institutions.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the remaining life of the lease at the time the asset is placed into service. In December 2018, the Company changed the estimated useful life of its leasehold improvements to better reflect the period during which these assets are expected to remain in service. The change in estimated useful life has been accounted for as a change in accounting estimate. The remaining carrying amounts of the leasehold improvements as of December 31, 2018 will be amortized prospectively over one year up to December 31, 2019. The change in estimated useful life increased loss from operations and net loss by approximately $26,000, or less than $0.01 per share, as reported in the Statement of Operations for the year ended December 31, 2018.

For assets held for sale, the property and equipment (the “disposal group”) are measured at the lower of their carrying amount or fair value less cost to sell. Losses are recognized for any initial or subsequent write-down to fair value less cost to sell, while gains are recognized for any subsequent increase in fair value less cost to sell, but not in excess of the cumulative loss previously recognized. Any gains or losses not previously recognized that result from the sale of the disposal group shall be recognized at the date of sale. Property and equipment are not depreciated while classified as held for sale. During the fourth quarter of 2018, certain property and equipment qualified as held for sale treatment. See Note 5 *Property and Equipment, net* to the Notes to Financial Statements.

Impairment of Long-Lived Assets

The carrying value of long-lived assets, including property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the asset may not be recoverable. An impairment loss is recognized when the total of estimated future undiscounted cash flows, expected to result from the use of the asset and its eventual disposition, are less than its carrying amount. Impairment, if any, would be assessed using discounted cash flows or other appropriate measures of fair value. Through December 31, 2018, there have been no such impairment losses.

Revenue Recognition

Effective January 1, 2018, the Company adopted Accounting Standards Codification, or ASC, Topic 606, Revenue from Contracts with Customers, using the modified retrospective transition method. Under this method, the Company recorded a cumulative adjustment to the opening balance of accumulated deficit and to deferred revenue. Under Topic 606, the Company recognizes revenue when it transfers control of promised goods or services to its customers in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that the Company determines are within the scope of Topic 606, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once a contract is

determined to be within the scope of Topic 606, the Company assesses the goods or services promised within the contract and determines those that are performance obligations, and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

The Company evaluated its existing contracts and only applied Topic 606 to those contracts that were not completed at January 1, 2018. As a result of this evaluation, the Company determined that only its collaboration with Celgene Corporation ("Celgene") is within the scope of Topic 606. The terms of this arrangement include payment to the Company of a non-refundable, upfront fee; potential development, regulatory and sales milestones; program opt-in payments; and royalties on net product sales. Each of these payments results in collaboration revenue, except for revenues from royalties on net product sales, which would be classified as royalty revenues. In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under its collaboration agreement with Celgene, the Company applies the five-step model. As part of the accounting for this arrangement, the Company must develop assumptions that require judgment to determine the stand-alone selling price for each performance obligation identified in the contract. The Company also must develop assumptions that require judgment in determining the measure of progress used to recognize revenue.

Milestone Payments

At the inception of each arrangement that includes development, regulatory or commercial milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant reversal of cumulative revenue would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or partner, such as regulatory approvals, are not considered probable of being achieved until those approvals are received or the underlying activity has been completed. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates the probability of achievement of such development milestones and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect collaboration revenues and earnings in the period of adjustment.

Customer Concentration

Customers whose collaboration revenue accounted for 10% or more of total revenues were as follows:

	Year Ended December 31,		
	2018	2017	2016
GlaxoSmithKline LLC ("GSK")	—	*	*
Bayer Pharma AG ("Bayer")	—	*	*
Celgene Corporation ("Celgene")	100%	94%	87%

* *less than 10%*

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development costs consist of salaries and other personnel-related expenses, including associated stock-based

compensation, consulting fees, lab supplies, and facility costs, as well as fees paid to other entities that conduct certain research, development and manufacturing activities on behalf of the Company.

Clinical Trial Accruals

Clinical trial costs are a component of research and development expenses. The Company accrues and expenses clinical trial activities performed by third parties based upon actual work completed in accordance with agreements established with clinical research organizations and clinical sites. The Company determines the actual costs through discussions with internal personnel and external service providers as to the progress or stage of completion of trials or services and the agreed-upon fee to be paid for such services.

Nonrefundable advance payments for goods and services that will be used or rendered in future research and development activities, are deferred and recognized as expense in the period that the related goods are delivered or services are performed.

Stock-Based Compensation

The Company recognizes compensation expense for all share-based payment awards made to employees and directors based on estimated fair values. For employee stock options, the Company determines the grant date fair value of the awards using the Black-Scholes option-pricing model and generally recognizes the fair value as stock-based compensation expense on a straight-line basis over the vesting period of the respective awards. Stock-based compensation expense is based on the value of the portion of stock-based payment awards that is ultimately expected to vest. As such, the Company's stock-based compensation is reduced for the estimated forfeitures at the date of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. For restricted stock, the compensation cost for these awards is based on the closing price of the Company's common stock on the date of grant and recognized as compensation expense on a straight-line basis over the requisite service period.

In the second quarter of 2018, the Company early adopted ASU 2018-07, *Stock Compensation*. ASU 2018-07 clarifies the accounting for share-based payment transactions for acquiring goods and services from non-employees. Specifically, the standard aligns the accounting for payments to non-employees to match the accounting for payments to employees, and no longer accounting for these transactions differently. The adoption of the standard did not have material impact on the Company's financial statements.

Leases

The Company rents its office space and facilities under cancelable and non-cancelable operating lease agreements and recognizes related rent expense on a straight-line basis over the term of the lease. The Company's lease agreements contain rent holidays, scheduled rent increases, lease incentives and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded over the lease term. Lease incentives are recognized as a reduction of rent expense on a straight-line basis over the term of the lease. The Company does not assume renewals in its determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease. The Company begins recognizing rent expense on the date that the Company obtains the legal right to use and control the leased space.

The Company entered into a sublease agreement during the fourth quarter of 2018. The Company records sublease income as a reduction of rent expense.

Restructuring Charges

Restructuring charges consist of severance, other one-time benefits and other employee related charges. Liabilities for costs associated with a restructuring activity are measured at fair value and are recognized when the liability is incurred. One-time termination benefits are expensed at the date the Company notifies the employee, unless the employee will continue to provide future services, in which case the benefits are expensed ratably over the future service period.

The Company continually evaluates the adequacy of the remaining liabilities under its restructuring initiatives. Although the Company believes that these estimates accurately reflect the costs of the Company's restructuring plan, actual results may differ and thereby require the Company to record an additional provision or reverse a portion of such a provision.

Income Taxes

The Company accounts for income taxes using the liability method under which deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount which is more likely than not to be realizable.

The recognition, derecognition and measurement of a tax position is based on management's best judgment given the facts, circumstances and information available at each reporting date. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of income tax expense. To date, there have been no interest or penalties charged in relation to the unrecognized tax benefits.

Net Loss per Common Share

Basic net loss per common share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per common share is computed by dividing the net loss by the weighted-average number of common shares and common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, potentially dilutive securities consisting of stock options and restricted stock units are considered to be common stock equivalents and were excluded in the calculation of diluted net loss per common share because their effect would be anti-dilutive for all periods presented.

Newly Adopted and Recent Accounting Pronouncements

Accounting Standard Update ("ASU") No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition.

In May 2014, the Financial Accounting Standards Board ("FASB") issued a comprehensive new standard on revenue from contracts with customers, ASU No. 2014-09, Revenue from Contracts with Customers, or Topic 606. The standard's core principle is that a reporting entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Entities have the option of using either a full retrospective or a modified retrospective approach to adopt this new guidance. In 2016, the FASB updated the guidance for reporting revenue gross versus net to improve the implementation guidance on principal versus agent considerations, and for identifying performance obligations and the accounting of intellectual property licenses. In addition, the FASB introduced practical expedients and made narrow scope improvements to the new accounting guidance.

Collaboration with Celgene

The Company adopted the accounting standard update on January 1, 2018 using the modified retrospective approach, for its collaboration agreement with Celgene. Therefore, comparative historical information will not be adjusted and will continue to be reported under ASC 605 with the impact of the transition reflected in the opening balance of accumulated deficit as of January 1, 2018. The consideration the Company is eligible to receive under this agreement includes upfront payments, milestone payments and program opt-in payments. The new revenue recognition standard differs from ASC 605 in many respects, such as in the accounting for variable consideration and the measurement of progress toward completion of performance obligations. The most significant impact of the standard relates to the Company's method of revenue recognition for performance obligations that are delivered over time. Under the new standard, milestone payments are included in the transaction price as variable consideration, subject to a constraint, and are allocated to the performance obligations in the contract when recognized. Through December 31, 2017, the Company also received payments from Celgene to reimburse the costs of research and development services performed by the Company; these payments were historically recorded as other revenue. As the performance of these research and development services was at the Company's discretion and are not reflective of a commitment or performance obligation pursuant to the Celgene agreement, the reimbursement paid to the Company has been excluded from the transaction price.

The Company's deferred revenue associated with its Celgene collaboration agreement as of December 31, 2017 under Topic 605 was $143.8 million. As a result of adopting Topic 606, the Company recorded a $98.3 million reduction to its deferred revenue and opening accumulated deficit on January 1, 2018 as a result of the cumulative impact of the change in the recognition of the upfront and milestone payments using the input method (described further in Note 5, "Collaborations") under Topic 606, rather than on a ratable basis which was applied in prior periods. Under Topic 606, collaboration revenue under the Company's collaboration agreement with Celgene from inception of the agreement through January 1, 2018 was $186.2 million and deferred revenue was $45.5 million as of January 1, 2018. At adoption date, the remaining performance obligation under the contract was estimated to be substantially complete by the third quarter of 2019. At December 31, 2018, the Company evaluated the development program status of the remaining product candidate under the collaboration agreement with Celgene, etigilimab, and estimated that the remaining performance obligation under the contract will be completed by the first quarter of 2019.

Collaborations with Bayer and GSK

As the GSK collaboration was terminated in its entirety on October 28, 2017, this arrangement was outside the scope of Topic 606 as of the adoption date. For the Bayer collaboration, Bayer terminated all biologic therapeutic programs under the collaboration effective June 16, 2017, while the small molecule therapeutics program remained active. Refer to Note 5, "Collaborations," for further details. The Company has determined that the small molecule therapeutic program remaining as of December 31, 2017 is immaterial in the context of the collaboration agreement relative to the biologics therapeutic programs that was terminated during 2017. The Company's performance obligations under the small molecule therapeutic program with respect to Bayer were substantially complete at December 31, 2017, and any future receipts in the form of milestones or royalties are contingent upon the achievement of specified development, commercial and/or sales targets. The Company has concluded that there was no transition adjustment to be recognized on January 1, 2018 for these two agreements.

Impact of Adoption

The following table summarizes the impact of adopting Topic 606 on select balance sheets and statement of operations line items:

(In thousands)	Balance at December 31, 2017	Adjustment	Balance at January 1, 2018
Balance Sheets:			
Deferred revenue, current portion	$ 82,193	$ (51,299)	$ 30,894
Deferred revenue, non-current portion	61,645	(47,023)	14,622
Accumulated deficit	(452,007)	98,322	(353,685)

	For the year ended December 31, 2018		
(In thousands, except per share data)	As reported under Topic 606	Adjustment	Balances without the adoption of Topic 606
Statements of Operations:			
Collaboration revenue	$ 44,421	$ 58,321	$ 102,742
Income (loss) from operations	(10,045)	58,321	48,276
Net income (loss)	(8,101)	58,321	50,220
Net income (loss) per common shares, basic	(0.21)	1.52	1.31
Net income (loss) per common shares, diluted	(0.21)	1.51	1.30

Contract Balances

Upfront payments and fees may be required to be recorded as deferred revenue upon receipt or when due, and recognized in a future period when or as the Company performs its obligations under these arrangements. Amounts payable to the Company are recorded as accounts receivable when the Company's right to consideration is unconditional.

As of December 31, 2018, the Company's contract liabilities, which consisted of deferred revenue, decreased by a total of $142.7 million from December 31, 2017, of which $98.3 million was related to the cumulative adjustment to the opening balance of accumulated deficit upon the adoption of Topic 606 on January 1, 2018 and $44.4 million related to revenue recognized for the year ended December 31, 2018. Upon adoption of the standard as of January 1, 2018, the Company had a $45.5 million contract liability. As of December 31, 2018, the Company had a $1.1 million contract liability. The remaining performance obligation under the contract is expected to be substantially complete by the first quarter of 2019.

ASU No. 2016-02, Leases (Topic 842)

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, which amends the existing accounting standards for leases. The new standard requires lessees to record a right-of-use asset and a corresponding lease liability on the balance sheet (with the exception of short-term leases). For lessees, leases will continue to be classified as either operating or financing in the income statement. This ASU becomes effective in the first quarter of fiscal year 2019 and early adoption is permitted. This ASU is required to be applied with a modified retrospective approach and requires application of the new standard at the beginning of the earliest comparative period presented. In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements*. In issuing ASU No. 2018-11, the FASB decided to provide another transition method in addition to the existing transition method by allowing entities to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of

adoption. The Company is currently evaluating our population of leases and are continuing to assess all potential impacts of ASU 2016-02 and ASU 2018-11, but currently believe that the most significant impact relates to the Company's accounting for office building operating leases. The Company anticipates recognition of additional assets and corresponding liabilities related to leases upon adoption, but have not yet quantified these at this time. The Company will adopt the standard effective January 1, 2019 and plan to utilize the transition method stated in ASU 2018-11.

ASU No. 2018-07, Improvement to Nonemployees Share-based Payment Accounting (Topic 718)

In June 2018, the FASB issued ASU No. 2018-07, *Stock Compensation*. ASU No. 2018-07 simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. The guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted, but not earlier than the Company's adoption of Topic 606. The Company chose to adopt the guidance early, in the second quarter of 2018. The adoption of the standard did not have material impact on the Company's financial statements.

3. Cash and Investments

The fair value of securities, not including cash at December 31, 2018 and 2017 were as follows:

	December 31, 2018			
(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	$ 275	$ —	$ —	$ 275
U.S. treasury bills	47,688	—	(29)	47,659
Total	$ 47,963	$ —	$ (29)	$47,934
Classified as:				
Cash equivalents				$ 275
Short-term investments				47,659
Total				$47,934

As of December 31, 2018, the Company had a total of $57.3 million in cash, cash equivalents and short-term investments, which includes $9.7 million in cash and cash equivalents and $47.6 million in short-term investments.

	December 31, 2017			
(In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market funds	$ 99	$ —	$ —	$ 99
U.S. treasury bills	89,525	289	—	89,814
Total	$ 89,624	$ 289	$ —	$89,913
Classified as:				
Cash equivalents				$ 99
Short-term investments				89,814
Total				$89,913

As of December 31, 2017, the Company had a total of $103.1 million in cash, cash equivalents and short-term investments, which includes $13.3 million in cash and cash equivalents and $89.8 million in and short-term investments.

All available-for-sale securities held as of December 31, 2018 had contractual maturities of less than one year. There have been no significant realized gains or losses on available-for-sale securities for the periods presented.

4. Fair Value Measurements

The Company records its financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

- Level 1: Inputs which include quoted prices in active markets for identical assets and liabilities.
- Level 2: Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company's financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used in such measurements were as follows:

	December 31, 2018			
(In thousands)	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 275	$ —	$ —	$ 275
U.S. treasury bills	—	47,659	—	47,659
Total	$ 275	$47,659	$ —	$47,934

	December 31, 2017			
(In thousands)	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 99	$ —	$ —	$ 99
U.S. treasury bills	—	89,814	—	89,814
Total	$ 99	$89,814	$ —	$89,913

Where quoted prices are available in an active market, securities are classified as Level 1. When quoted market prices are not available for the specific security, then the Company estimates fair value by using benchmark yields, reported trades, broker/dealer quotes, and issuer spreads. The Company classifies U.S. Treasury securities as Level 2. There were no transfers between Level 1 and Level 2 during the periods presented.

5. Property and Equipment, net

Property and equipment, net consist of the following:

(In thousands)	December 31, 2018	December 31, 2017
Computer equipment and software	$ 1,440	$ 1,935
Furniture and fixtures	415	547
Laboratory equipment	—	11,720
Leasehold improvements	9,598	9,250
	11,453	23,452
Less accumulated depreciation and amortization	(10,830)	(20,177)
Property and equipment, net	$ 623	$ 3,275

Depreciation expense for the years ended December 31, 2018, 2017 and 2016 was $1.7 million, $1.7 million and $1.8 million, respectively

The Company reviews the estimated useful lives of its property and equipment on an ongoing basis. Effective December 1, 2018, the Company changed its estimated useful life of leasehold improvements and this change has been accounted for as a change in accounting estimate. The remaining carrying amounts of the leasehold improvements as of December 31, 2018 will be amortized prospectively over one year up to December 31, 2019. The change in estimated useful life increased net loss by approximately $26,000, or less than $0.01 per share, as reported in the Statement of Operations for the year ended December 31, 2018.

In the fourth quarter of 2018, property and equipment with net book value of $1.4 million qualified as held for sale treatment. Assets held for sale are measured at the lower of their carrying amount or fair value less cost to sell. The property and equipment are not depreciated while classified as held for sale. As of December 31, 2018, assets held for sale were composed mainly of laboratory equipment and were recorded at $1.4 million. Subsequently, in January 2019, the Company sold the property and equipment classified as held for sale for net sale proceeds of approximately $1.4 million. No impairment loss was recorded for such assets held for sale as of December 31, 2018.

6. Accrued Liabilities

Accrued liabilities consist of the following:

(In thousands)	December 31, 2018	December 31, 2017
Research and development related	$ 988	$ 670
Compensation related	1,809	2,733
Other	1,571	537
Total accrued liabilities	$4,368	$3,940

7. Commitments and Contingencies

Operating Leases

The Company leases an office and laboratory facility in Redwood City, California under a lease agreement that was originally set to expire in January 2019 and included a lease extension option for two additional three-year terms. During the fourth quarter of 2016, the Company signed an amendment to the lease agreement to extend the lease term through May 2028 with an option to extend the lease for an additional three-year term.

The amendment to the lease agreement includes a 10-year cancelable lease agreement for additional office and laboratory space that expires in May 2028, subject to the Company's three-year lease extension option described above. The Company exercised its right to terminate the lease agreement for this additional space prior to September 2017. The exercise of such cancelation did not result in an economic penalty to the Company.

As of December 31, 2018, future minimum annual rental payments under the Company's non-cancelable operating lease agreement are as follows (in thousands):

Year ending December 31,	Operating Leases, net of Sublease Income
2019	$ 776
2020	1,640
2021	2,577
2022	2,667
2023	2,761
2024 and thereafter	13,382
Total minimum payments	$ 23,803

Through December 31, 2018, the landlord provided the Company a tenant improvement allowance for a total of $8.0 million for its office and laboratory expansion in prior years and office improvements. The Company recorded the tenant improvement allowance received as leasehold improvements under the property and equipment account and deferred rent liability on the accompanying balance sheets.

In October 2018 and January 2019, the Company subleased a specified portion of the Company's office facility located in Redwood City, California. These subleases have terms of 12 to 24 months and will expire in 2020. The aggregate sublease proceeds of $1.6 million and $0.8 million for the years ending December 31, 2019 and 2020, respectively, are included in the table above.

The operating lease agreement contains rent escalation provisions and tenant improvement allowances. The total rent obligation is being expensed ratably over the term of the agreement. Rent expense for year ended December 31, 2018 was $2.3 million, net of sublease income of $0.1 million. Rent expense for years ended December 31 2017 and 2016 was $2.4 million and $1.6 million, respectively.

Guarantees and Indemnifications

The Company, as permitted under Delaware law and in accordance with its certificate of incorporation and bylaws, and pursuant to indemnification agreements with certain of its officers and directors, indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such capacity. The term of the indemnification period lasts as long as an officer or director may be subject to any proceeding arising out of acts or omissions of such officer or director in such capacity.

The maximum amount of potential future indemnification is unlimited; however, the Company currently holds director and officer liability insurance. This insurance limits the Company's exposure and may enable it to recover a portion of any future amounts paid. The Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations for any period presented.

8. License Agreement

In 2004, the Company assumed an exclusive, worldwide license agreement with the University of Michigan relating to the use of certain patents and technology relating to its cancer stem cell ("CSC") technology for which an up-front fee of $10,000 had been paid and the Company issued 7,796 shares of its common stock. Pursuant to the agreement, the Company is obligated to make low single-digit royalty payments to the University of Michigan on net sales of its or its licensees' products and processes covered under the agreement, pay an annual license maintenance fee, and reimburse the University of Michigan for costs of prosecution and maintenance of the licensed patents which reduces future royalty obligations. With respect to one family of licensed patent applications that does not relate to any of the Company's lead therapeutic programs, the Company is also required to pay a tiered, single-digit percentage of any sublicense revenues, including any upfront or milestone payments, received from any sublicensees under such family of patents. Once the University of Michigan has received $10.0 million in royalties, the Company may at its option convert the license to a fully paid-up license provided the Company transfers additional shares of nonvoting common stock equal to 0.25% of the fully diluted shares then outstanding to the University of Michigan. The amounts incurred for patent legal costs amounted to $27,000, $32,000 and $69,000 for the years ended December 31, 2018, 2017 and 2016, respectively, all of which has been recorded as general and administrative expense in the statements of operations.

9. Collaborations

The Company has entered into three collaboration arrangements, each having multiple deliverables under which the Company received non-refundable upfront payments. For collaborations where the Company has determined that there is a single unit of accounting the Company recognizes revenue related to the upfront payments ratably over its estimated period of performance for each collaboration. Two of these collaboration agreements have since been entirely or substantially terminated.

The Company's prior and current collaboration arrangements include contractual milestones, which relate to the achievement of pre-specified research, development, regulatory and commercialization events. The milestone events contained in the Company's alliances coincide with the progression of the Company's product candidates from research and development, to regulatory approval and through to commercialization. The process of successfully discovering a new product candidate, having it selected by the alliance partner for development, having it approved and ultimately sold for a profit is highly uncertain. As such, the milestone payments that the Company may earn from its collaborators involve a significant degree of risk to achieve.

Research and development milestones in the Company's strategic alliances may include the following types of events:

- Completion of pre-clinical research and development work leading to selection of product clinical candidates.
- Advancement of candidates into clinical development, which may include filing of investigational new drug ("IND") applications.
- Initiation of Phase I, Phase II or Phase III clinical trials.
- Achievement of certain scientific or development events.

Regulatory milestones may include the following types of events:

- Filing of regulatory applications for marketing approval such as a New Drug Application in the United States, or a Marketing Authorization Application in Europe.
- Marketing approval in a major market, such as the United States, Europe or Japan.

Commercialization milestones may include the following types of events:

- Product sales in excess of pre-specified thresholds.

Summary of Collaboration Related Revenue

The Company has recognized the following revenues from its prior and current collaboration agreements during the years ended December 31, 2018, 2017 and 2016:

	Year Ended December 31,		
(In thousands)	2018	2017	2016
Celgene:			
Recognition of upfront payment	$44,421	$35,588	$20,053
Other revenue	—	409	1,780
Celgene total	44,421	35,997	21,833
Bayer:			
Recognition of upfront payments	—	278	648
Other revenue	—	1,726	1,457
Bayer total	—	2,004	2,105
GSK:			
Recognition of upfront payment	—	150	576
Other revenue	—	3	639
GSK total	—	153	1,215
Total collaboration related revenue	$44,421	$38,154	$25,153

Adoption of ASU No. 2014-09

On January 1, 2018, the Company adopted ASU No. 2014-09 using the modified retrospective method. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with Topic 605.

Celgene Strategic Alliance

In December 2013, the Company entered into a Master Research and Collaboration Agreement (the “Agreement”) with Celgene pursuant to which the Company and Celgene were to collaborate on research and development programs directed to the discovery and development of novel biologic therapeutic programs, and, if Celgene exercised its option to do so, the discovery, development and commercialization of novel small molecule therapeutics.

The etigilimab program is the last remaining biologic therapeutic program that is currently active under the collaboration agreement with Celgene. Celgene has an option to obtain an exclusive license to develop further and commercialize biologic therapeutics in the etigilimab program, which may be exercised during time periods specified in the collaboration agreement through the earlier of completion of a certain clinical trial or the twelfth anniversary of the date of the collaboration agreement. Pursuant to the agreement, the Company will lead the development of etigilimab prior to Celgene’s exercise of its option for the etigilimab program. The Company is responsible for funding all research and development activities that we choose to undertake for therapeutics in the etigilimab program prior to Celgene’s exercise of the option for the program. Upon option exercise by Celgene, the Company will be required to enter into an agreed form of a license agreement with Celgene, pursuant to which Celgene retains all rights to develop further and commercialize biologic therapeutic

products in the etigilimab program on a worldwide basis, with certain support for development from the Company.

The Company is eligible to receive a $35.0 million opt-in payment upon Celgene's exercise of the option for the etigilimab program. The collaboration also includes milestone payments for achievement of specified development, regulatory and commercial milestones, paid on a per-product and per-program basis. The option exercise payments and payments for achievement of development, regulatory and commercial milestones under the agreement may total up to $440.0 million, for products in the etigilimab program, including the $35.0 million opt-in payment. The Company previously received a $2.5 million milestone payment for the etigilimab program. Accordingly, the future potential milestone payments for products in the etigilimab program under the collaboration total up to $437.5 million, including the $35.0 million opt-in payment. For the etigilimab program, if the option is exercised and the program is successfully commercialized by Celgene, the Company is eligible to receive tiered royalties equal to a percentage of net product sales worldwide in the high-single digits to the mid-teens. The Company is not eligible to receive any further research or development milestone payments for etigilimab prior to Celgene's decision regarding option exercise with respect to etigilimab.

The collaboration agreement with Celgene will terminate upon the expiration of all of Celgene's payment obligations under the license agreement entered into with respect to the etigilimab program following Celgene's exercise of an option for such program, or if Celgene's option on the etigilimab program expires without Celgene exercising its option. The collaboration agreement may be terminated by either party for the insolvency of, or an uncured material breach of the collaboration agreement by the other party. In addition, Celgene may terminate the collaboration agreement in its entirety or with respect to the etigilimab program, for any reason, upon 120 days' prior written notice to us and upon 60 days' prior written notice in the event that Celgene reasonably believes that such termination is necessary in order to comply with any antitrust laws. The Company may also terminate the collaboration agreement with respect to the etigilimab program in the event that Celgene challenges the licensed patents with respect to such program.

If Celgene does not exercise its option with respect to the etigilimab program before the option for that program expires, the Company will retain worldwide rights to such program. In addition, under certain termination circumstances, the Company would also have worldwide rights to the etigilimab program.

The collaboration agreement with Celgene previously included the demcizumab, navicixizumab, and rosmantuzumab biologic therapeutic programs. Celgene, however, terminated the collaboration agreement with respect to both demcizumab and navicixizumab, effective January 23, 2019, and terminated the collaboration agreement with respect to rosmantuzumab, effective February 12, 2019. Prior to such terminations, Celgene had options to obtain an exclusive license to develop further and commercialize biologic therapeutics in these programs under the agreement. As a result of these terminations, the Company now has worldwide rights to each of these programs, including navicixizumab. Under certain circumstances, the Company may owe Celgene single-digit percentage royalties on therapeutic products in these programs if we elect to continue to commercialize them and they are successfully commercialized, subject to a cap.

Celgene previously had the right to designate up to two additional biologic therapeutic programs targeting the RSPO-LGR signaling pathway or an undisclosed pathway for inclusion in the collaboration, but this right expired on the fourth anniversary of the date of the collaboration agreement. Celgene also had an additional option, which expired unexercised on the fourth anniversary of the date of the collaboration agreement, that would have permitted Celgene to discover, develop and commercialize small molecule therapeutics directed to targets in an undisclosed pathway under the collaboration.

Under the terms of the collaboration agreement with Celgene, the Company received an upfront cash payment of $155.0 million in December 2013. In addition, Celgene purchased 1,470,588 shares of the Company's common stock at a price of $15.13 per share, resulting in gross proceeds of $22.2 million. The price paid by Celgene for the common stock represented a premium over the closing price of the Company's common stock on the date of the collaboration. The Company accounted for the $1.7 million premium as additional consideration under the Agreement and the common stock was recorded at its fair market value of $20.5 million. As of December 31, 2018, the Company is not eligible to receive any milestone payments under its collaboration with Celgene prior to the point that Celgene exercises its remaining option. The Company is eligible to receive up to approximately $35.0 million of contingent consideration if Celgene exercises its options for the etigilimab program. Following Celgene's exercise of its option for the etigilimab program, Celgene will have exclusive development and commercialization rights worldwide, with the Company eligible to receive milestones and tiered royalties equal to a percentage of net product sales worldwide in the high-single digits to the mid-teens. If Celgene successfully develops and commercializes product candidates in the etigilimab program, the Company could receive additional contingent consideration of up to $402.5 million for the achievement of post-option exercise development, regulatory events and sales milestones.

The Company assessed its collaboration agreement with Celgene in accordance with Topic 606 and concluded that Celgene is a customer. The Company determined that its performance obligation under the arrangement with Celgene is research and development services. As part of the promised research and development services, the Company may provide the resultant data to Celgene to assist Celgene in determining whether or not to exercise its options. Under the arrangement, Celgene has options to further develop and commercialize biologic therapeutics in each program under the collaboration, which may be exercised during time periods specified in the agreement. Upon Celgene's exercise of its option for certain programs, the Company may, at its discretion, gain co-development and co-commercialization rights and corresponding obligations. The Company determined that the exclusive option(s) provided to Celgene is not a material right under Topic 606 and thus it is not a performance obligation. Based on its assessment, the Company has identified the research and development services as the only performance obligation at the inception of the collaboration agreement.

Prior to recognizing revenue, the Company estimates the transaction price, including variable consideration that is subject to a constraint. Amounts of variable consideration are included in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration includes payments based upon the achievement of specified milestones, and royalty payments based on product sales derived from the collaboration. Under the collaboration agreement, the Company determined that the non-refundable upfront cash payment of $155.0 million and stock premium of $1.7 million received in December 2013 constitute consideration to be included in the transaction price. The Company also included in the transaction price the $70.0 million demcizumab (anti-DLL4, OMP-21M18) safety milestone that was achieved in December 2015 and the two designation milestone payments of $2.5 million each for the designation of rosmantuzumab and etigilimab as clinical candidates in 2014 and 2015, respectively. The total consideration received of $231.7 million constitutes the transaction price at the transition date for Topic 606. Through December 31, 2017, the Company also received a total of $2.5 million in the aggregate from Celgene to reimburse the costs of research and development services performed by the Company; these reimbursements have historically been recorded as other revenue. As the performance of these research and development services was at the Company's discretion and is not a commitment or performance obligation pursuant to the Celgene collaboration agreement, the reimbursement paid to the Company has been excluded from the transaction price. None of the remaining development and regulatory milestone amounts have been included in the transaction price, as all milestone amounts were fully constrained as of January 1, 2018 and December 31, 2018. As part

of the Company's evaluation of the constraint, the Company considered numerous factors, including that receipt of the milestone amounts is outside the control of the Company and contingent upon success in future clinical trials. Any consideration related to sales milestones and royalties on net product sales will be recognized at the later of when the related sales occur or the performance obligation to which some or all of the sales milestone or royalty has been allocated is satisfied (in whole or in part) and therefore have also been excluded from the transaction price. The Company will re-evaluate the transaction price in each reporting period and as uncertain events are resolved or other changes in circumstances occur.

The impact of adopting Topic 606 on the accounting treatment of the Company's collaboration agreement with Celgene primarily relates to the change in the timing of revenue recognition of the transaction price. The Company's deferred revenue associated with its Celgene collaboration agreement as of December 31, 2017 under Topic 605 was $143.8 million. Upon adoption of Topic 606 as of January 1, 2018, the Company recognized a cumulative catch up adjustment of $98.3 million, which was recorded as a decrease to the opening balance of accumulated deficit, and a corresponding decrease in the deferred revenue balance from the Company's collaboration with Celgene.

Following the adoption of Topic 606, the Company recognizes collaboration revenue by measuring the progress toward complete satisfaction of the performance obligation using an input measure. The Company concluded the method that best correlates with progress of the services provided to Celgene is the input method, based on actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. The Company will evaluate the estimate of expected costs to satisfy the performance obligation each reporting period and make adjustments for any significant changes. Under Topic 606, collaboration revenue under the Company's collaboration agreement with Celgene was $44.4 million for the year ended December 31, 2018 and deferred revenue balance was $1.1 million as of December 31, 2018. Upon adoption of Topic 606, the Company initially estimated that the performance obligation under the contract would be substantially completed by the third quarter of 2019. At December 31, 2018, the Company evaluated the development program status of the etigilimab program, the only program remaining under the collaboration agreement with Celgene, and determined that the performance obligation will be completed by the first quarter of 2019. The change in the timing of revenue recognition resulted in an increase in revenue and corresponding decreases in net loss of $7.7 million and net loss per common share, basic and diluted, of $0.20 per share for the year ended December 31, 2018.

As of December 31, 2018, the Company was eligible to receive in its collaboration with Celgene up to approximately $35.0 million of contingent consideration if Celgene exercises its options on the etigilimab program. If Celgene successfully develops and commercializes the etigilimab program, the Company could receive additional contingent consideration of up to approximately $402.5 million for the achievement of post-option exercise development, regulatory events and sales milestones. As all contingent consideration is based solely on the performance of Celgene, the Company would recognize the contingent payments upon receipt immediately as collaboration revenue if the Company had no further performance obligations under the agreement with Celgene.

In the fourth quarter of 2018, the Company recorded a receivable and a deferred revenue of $2.6 million for the sale of a tumor bank to Celgene. The Company recognized the receivable as of December 31, 2018 because the right to the consideration is considered unconditional. Subsequently, in January 2019, the Company recognized the revenue upon delivery of the tumor bank to Celgene. The sale is not considered a commitment or performance obligation pursuant to the Celgene collaboration agreement, hence is excluded from the collaboration transaction price.

Bayer Strategic Alliance

On June 15, 2010, the Company entered into a Collaboration and Option Agreement with Bayer. The agreement sets forth an alliance to discover, develop and market novel biologic and small molecule therapeutics affecting targets within the Wnt signaling pathway. The Company received an upfront payment of $40.0 million upon execution of the collaboration agreement in 2010 and a $5.0 million milestone payment in 2012. The Company initially recognized the payments as deferred revenue and amortized to revenue on a ratable basis through the second quarter of 2017, as permitted by the legacy revenue recognition guidance.

Effective June 16, 2017, Bayer terminated all biologic therapeutic programs under the collaboration. The Company is no longer eligible to receive any payments under its collaboration with Bayer with respect to biologic therapeutic candidates.

With respect to the Wnt pathway small molecule program, the Company and Bayer under the collaboration agreement agreed to jointly conduct research to discover potential new small molecule therapeutics targeting the Wnt pathway. Bayer may, within a specified time period, elect to advance such small molecule therapeutics into further development, and obtain an exclusive license to commercialize such therapeutics. Bayer leads discovery, development, and commercialization of such small molecule therapeutics. As of December 31, 2018, the Company remains eligible to receive up to $27.0 million in development milestone payments for each small molecule candidates. If Bayer successfully develops and commercializes small molecule candidates for more than one indication, the Company could receive contingent consideration payments for each small molecule candidate of up to $15.0 million for the achievement of certain regulatory events and up to $70.0 million upon the achievement of specified future product sales. As all such contingent consideration is based solely on the performance of Bayer, the Company would recognize the contingent payments upon receipt immediately as collaboration revenue.

The Company evaluated the agreement under Topic 606, and determined that the small molecule therapeutic program remaining as of December 31, 2017 is immaterial in the context of the collaboration agreement relative to the biologics therapeutic programs that was terminated during 2017. Further, the Company's performance obligations under the small molecule therapeutic program were substantially complete at December 31, 2017, and any future receipts in the form of milestones or royalties are contingent upon the achievement of specified development, commercial and/or sales targets by Bayer.

GSK Strategic Alliance

On December 7, 2007, the Company entered into a Collaboration and Option Agreement with GSK. The agreement was formed to discover, develop and market novel antibody therapeutics to target CSCs. The agreement gave GSK the option to obtain an exclusive license for certain product candidates targeting the Notch signaling pathway.

In 2007, the Company received an initial payment of $35.0 million, with half in the form of an equity investment by GSK in the Company's Series B-2 convertible preferred stock and the other half as an up-front cash payment which was initially recorded as deferred revenue. The 1,441,396 shares of Series B-2 convertible preferred stock sold by the Company to GSK were issued at a premium of $4.3 million above the estimated fair value of convertible preferred stock at the time of issuance. This premium was considered an additional up-front payment and was added to the $17.5 million deferred revenue and was amortized to revenue on a ratable basis through the first quarter of 2017, as permitted by the legacy revenue recognition guidance.

Effective October 28, 2017, GSK terminated the agreement in its entirety. As a result of such termination, the Company is no longer eligible to receive any payments under the collaboration

agreement with GSK and the Company has no remaining performance obligations. As the GSK collaboration was terminated in its entirety on October 28, 2017, this arrangement is outside the scope of Topic 606 as of the adoption date.

10. Lonza Sales AG Agreement

In August 2012, the Company entered into a multi-product license agreement with Lonza Sales AG ("Lonza"). This agreement relates to the process development and manufacturing of the Company's biologics portfolio with Lonza. Under the multi-product license agreement, the Company receives licenses to utilize Lonza's glutamine synthetase gene expression system and related technologies for commercial production of the Company's product candidates. Under this license agreement, the Company paid an upfront payment of $488,000 which was recorded to research and development expense during 2012 and is obligated to pay Lonza certain payments up to £200,000 (approximately $254,000) per licensed product on achievement of specified milestones, and royalties up to the very low single digits on sales of its licensed products. There has been no further payment made by the Company to Lonza pursuant to the license agreement for the years ended December 31, 2018, 2017 and 2016.

The multi-product license agreement shall remain in force on a product by product and country by country basis until expiration of the Company's obligation to make payments to Lonza with respect to such product in such country. The agreement can otherwise be terminated by the Company for any reason or no reason upon advance written notice to Lonza, or by either the Company or Lonza upon the other party's material breach of the agreement, or if the other party ceases to carry on business. Lonza may also terminate the licenses granted under the agreement if the Company challenges any of the Lonza patent rights.

11. Stockholder's Equity

Stock Incentive Plans

2004 Plan

The Company granted options under its 2004 Stock Incentive Plan (the "2004 Plan") until July 2013 when it was terminated as to future awards, although it continues to govern the terms of options that remain outstanding under the 2004 Plan. The 2004 Plan provided for the award of restricted shares, grants of incentive and nonstatutory stock options, and sales of shares of the Company's common stock. Awards can be made to employees, outside directors, and consultants of the Company. Stock options granted generally vest over a period of five years from the date of grant, with 20% of the total grant vesting on the first anniversary of the option vesting commencement date and 1/48 of the remaining grant vesting each month thereafter. Restricted stock issuances and early exercise of stock options were subject to the Company's right of repurchase at the original issuance price, which right lapses over the vesting period of the stock. In connection with the Board of Directors' and stockholders' approval of the 2013 Plan, all remaining shares available for future award under the 2004 Plan were transferred to 2013 Plan, and the 2004 Plan was terminated as to future awards.

2013 Plan

In July 2013, the Company's Board of Directors and stockholders approved the 2013 Equity Incentive Award Plan (the "2013 Plan"). Under the 2013 Plan, the Company initially reserved 500,000 shares of common stock for issuance as of its effective date of July 17, 2013, plus 90,125 shares which were then available for issuance under the Company's 2004 Plan. The number of shares reserved for issuance under the 2013 Plan will increase by the number of shares represented by awards outstanding under the 2004 Plan that are forfeited or lapse unexercised and which following

July 17, 2013 are not issued under the 2004 Plan. Additionally, on the first day of each calendar year, beginning in 2014 and ending in 2023, the number of shares in the reserve will increase by the least of 1,500,000 shares, 4% of the shares of the Company's common stock outstanding (on an as-converted basis) on the last day of the immediately preceding fiscal year or such smaller number of shares of stock as determined by the Company's Board of Directors. The 2013 Plan authorizes discretionary grants of incentive stock options, nonqualified stock options, restricted stock, restricted stock units, performance awards, dividend equivalents, stock payments, deferred stock, deferred stock units, and stock appreciation rights to employees and consultants of the Company, or any of its qualifying affiliates, and to members of the Board of Directors. The exercise price per share subject to each option shall not be less than 100% of the fair value of the common stock on the date of grant. In addition, in the case of incentive stock options granted to a greater than 10% stockholder, such price shall not be less than 110% of the fair value on the date the option is granted. The term of the options shall not be more than 10 years from the grant date, or 5 years from the date an incentive stock option is granted to a greater than 10% stockholder. Stock options granted generally vest over a period of four years from the date of grant, with 25% of the total grant vesting on the first anniversary of the option vesting commencement date and 1/48th of the original grant vesting each month thereafter for stock options granted upon hiring, and with 1/48th of the total grant vesting each month after the option vesting commencement date for any stock options granted after the hiring date.

As of December 31, 2018, a total of 8,217,239 shares of common stock have been authorized under the 2013 Plan. As of December 31, 2018, a total of 4,140,554 shares are subject to options and restricted stock units ("RSUs") outstanding under the 2013 Plan. There are 310,453 shares subject to options outstanding under the 2004 Plan as of December 31, 2018, which will become available for issuance under the 2013 Plan to the extent the options are forfeited or lapse unexercised without issuance of such shares under the 2004 Plan. On January 1, 2018, an additional 1,500,000 shares of the Company's common stock became available for future issuance as a result of the annual increase provision in the 2013 Plan.

Shares Reserved for Future Issuances

The following table summarizes the Company's common stock reserved for future issuance:

(In thousands)	December 31, 2018
Outstanding stock options and RSUs	4,451
Reserved for future equity award grants	3,350
Reserved for future ESPP issuances	1,510
Total common stock reserved for future issuances	9,311

Stock Options

The following table summarizes the stock option activity for the year ended December 31, 2018:

	Stock Option Outstanding			
(In thousands, except exercise price and contractual life)	Number of shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Balances at December 31, 2017	5,217	10.70	5.6	$ 913
Granted	1,744	3.34		
Exercised	—	—		
Forfeited	(2,816)	8.69		
Balances at December 31, 2018	4,145	8.96	6.4	—
Options vested and expected to vest—December 31, 2018	3,945	$ 8.88	7.0	—
Options exercisable—December 31, 2018	2,542	$ 11.44	5.2	—

The total fair value of options vested were $5.5 million, $7.1 million and $9.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. There were no options exercised during the year ended December 31, 2018. The aggregate intrinsic value of options exercised were $1.4 million and $0.8 million for the years ended December 31, 2017, and 2016, respectively. The stock options outstanding have no intrinsic value as of December 31, 2018.

The weighted-average grant date estimated fair value of options granted during the years ended December 31, 2018, 2017 and 2016 were $2.32, $3.66 and $8.23 per share, respectively.

Restricted Stock Units

The following table summarizes the RSU activity for the year ended December 31, 2018:

	Restricted Stock Units Outstanding			
(In thousands, except grant date fair value and contractual life)	Number of shares	Weighted Average Grant Date Fair Value per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Balances at December 31, 2017	880	5.33	1.3	$ 3,606
Awarded	70	2.29		
Released	(402)	4.57		
Forfeited	(242)	5.60		
Balances at December 31, 2018	306	5.41	1.0	$ 229

The total fair value of RSUs vested was $1.8 million, $6.4 million and $2.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. The aggregate intrinsic value of the non-vested RSUs was $0.2 million as of December 31, 2018.

Employee Stock Purchase Plan

The Company's Employee Stock Purchase Plan (the "ESPP") allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to

15% of their eligible compensation, subject to any plan limitations. The ESPP provides for six-month offering periods, and at the end of each offering period, employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the last day of the offering period.

On January 1, 2018, as a result of the annual increase provision in the ESPP plan, an additional 350,000 shares of the Company's common stock became available for future issuance. As of December 31, 2018, a total of 1,893,620 shares of common stock have been authorized and 1,510,518 shares of common stock are available for future issuance under the Company's ESPP.

In accordance with the terms of the Merger Agreement (see Note 16 *Potential Business Combination with Mereo BioPharma*), on February 23, 2019, the Board of Directors determined that the offering period ending on February 28, 2019 would be the final offering period under the ESPP and that, contingent upon the consummation of the Merger, the ESPP would terminate immediately prior to the effective time of the Merger.

During the years ended December 31, 2018, 2017 and 2016, employees purchased an aggregate of 45,352 shares, 88,982 shares and 111,633 shares under the Company's ESPP, respectively, at a weighted-average price per share of $1.97, $7.16 and $8.21, respectively. During the years ended December 31, 2018, 2017 and 2016, the weighted-average fair value per share granted under the Company's ESPP were $1.54, $3.39 and $5.06, respectively.

Stock-Based Compensation

Employee stock-based compensation expense was calculated based on awards expected to vest and has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Stock-based compensation expense recognized was as follows:

	Year Ended December 31,		
(In thousands)	2018	2017	2016
Research and development	$3,380	$4,886	$ 5,892
General and administrative	3,397	4,522	5,239
Restructuring charges	65	6	—
Total	$6,842	$9,414	$11,131

As of December 31, 2018, the Company had $4.3 million, $0.8 million and $2,000 of unrecognized compensation expense related to unvested stock options, RSUs and ESPP, respectively, which are expected to be recognized over an estimated weighted-average period of 2.5 years, 1.0 years and 0.2 years, respectively.

Fair Value Disclosures

The fair value of stock options granted and purchases under the Company's ESPP is estimated using the Black-Scholes option pricing model.

The fair value of stock options granted was estimated as of the grant date using the following assumptions:

	Year Ended December 31,		
	2018	2017	2016
Weighted-average volatility	78.1%	75.8%	71.9%
Weighted-average expected term (years)	6.2	6.2	5.8
Risk-free interest rate	2.6%	2.2%	1.5%
Expected dividend yield	—	—	—

The fair value of stock purchase rights granted under the Company's ESPP was estimated using the following assumptions:

	Year Ended December 31,		
	2018	2017	2016
Weighted-average volatility	66.5%–93.7%	54.0%–93.7%	45.4%–104.5%
Weighted-average expected term (years)	0.5	0.5	0.5
Risk-free interest rate	1.10%–2.28%	0.47%–1.10%	0.26%–0.50%
Expected dividend yield	—	—	—

Volatility

Since the Company has limited information on the volatility of its common stock due to no significant trading history, the expected stock price volatility was calculated based on a blend of the historical volatilities of the Company's own stock and of the common stock of comparable publicly traded biopharmaceutical companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle, and financial leverage to the Company.

Expected Term

The Company has very limited historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior for its stock-option grants. As such, the expected term was estimated using the simplified method.

Risk-Free Rate

The risk-free interest rate assumption is based on the zero-coupon U.S. Treasury instruments on the date of grant with a maturity date consistent with the expected term of the Company's stock option grants.

Expected Dividend Yield

To date, the Company has not declared or paid any cash dividends and does not have any plans to do so in the future. Therefore, the Company used an expected dividend yield of zero.

Common Stock Issuance under At-the-Market Agreement

Pursuant to a sales agreement (the "ATM Agreement") with Cantor Fitzgerald & Co. ("Cantor Fitzgerald"), the Company sold 355,821 and 388,166 shares for the years ended December 31, 2017 and 2016, respectively, at a weighted average price per share of $4.93 and $12.59, respectively. The

Company received net proceeds of $1.7 million and $4.7 million, net of offering costs, for the years ended December 31, 2017 and 2016, respectively. The shares were issued under the Company's shelf registration statement on Form S-3 (File No. 333-204914) filed with the SEC in June 2015.

In May 2018, the Company filed a new shelf registration statement on Form S-3 (File No. 333-225225) which permits the issuance and sale of up to a maximum aggregate offering price of $30.0 million of the Company's common stock that may be issued and sold under the ATM Agreement with Cantor Fitzgerald in one or more at-the-market offerings. Following the effectiveness of the new shelf registration statement on Form S-3 (File No. 333-225225) in June 2018, no additional securities covered by the prior shelf registration statement on Form S-3 (File No. 333-204914) shall be offered or sold. For the year ended December 31, 2018, the Company has not sold any securities under the new shelf registration statement.

Public Offering of Common Stock

On August 23, 2016, the Company closed the sale of an aggregate of 6,325,000 shares of its common stock, at a public offering price of $10.00 per share. The shares were issued pursuant to a prospectus supplement filed with the SEC on August 17, 2016, and related prospectus, pursuant to the Company's shelf registration statement on Form S-3 filed on June 12, 2015. The Company received net offering proceeds of approximately $59.2 million, net of underwriting discounts and commissions and offering costs.

12. Restructuring Charges

2018 Restructuring

In connection with the proposed Merger, on December 1, 2018, the Company's Board of Directors approved a restructuring plan to reduce the Company's workforce by 75%. Under the 2018 restructuring plan, the Company recorded $1.9 million of restructuring charges consisting of one-time severance payments and other employee related costs, and other charges during the fourth quarter of 2018. Restructuring charges are included in operating expenses in the statement of operations. The restructuring plan is ongoing and the Company expects to complete the actions associated with the restructuring in the first quarter of 2019.

The following table provides a summary of restructuring activity during the fourth quarter of 2018 and the related liabilities recorded in the accrued liabilities in the balance sheet. The Company expects to pay out its restructuring liability by the first quarter of 2019.

(In thousands)	Employee Severance and Other Costs
Balance as of December 31, 2017	$ 6
Costs incurred	1,851
Less cash payments	(572)
Less non-cash settlements	(65)
Balance as of December 31, 2018	$ 1,220

2017 Restructuring

On April 24, 2017, the Company's Board of Directors approved a restructuring plan to reduce operating costs and better align its workforce with the needs of its business following the Company's announcements that its Phase II "YOSEMITE" clinical trial of demcizumab did not meet its primary

endpoint and would be discontinued, its Phase II “PINNACLE” clinical trial of tarextumab did not meet its endpoints, its partner Bayer had decided not to exercise its option to license vantictumab and ipafricept, and enrollment would be discontinued in the Phase Ib clinical trial of brontictuzumab. The restructuring plan provided for a 48% reduction in the Company’s workforce. Under the 2017 restructuring plan, the Company recorded $2.5 million in restructuring charges consisting of one-time severance payments and other employee related costs, and other charges during the year ended December 31, 2017. Restructuring charges are included in operating expenses in the statement of operations. The Company has substantially completed this plan and paid the restructuring cost at the end of the fourth quarter of 2017. No charges were recorded in the periods after December 31, 2017.

13. Income Taxes

For the year ended December 31, 2018, the Company recorded an income tax benefit of $0.4 million in the statement of operations as a result of a lapse of statute of limitations on uncertain tax positions. For the year ended December 31, 2017, the Company recorded an income tax benefit of $1.1 million due to an Alternative Minimum Tax (“AMT”) refundable credit as a result of the Tax Cuts and Jobs Act (“Tax Act”), enacted on December 22, 2017. For the year ended December 31, 2016, the Company recorded an income tax provision of $14,000 due to interest on uncertain tax positions.

Loss before income taxes for the years ended December 31, 2018, 2017 and 2016 was from the United States.

The components of the income tax provision (benefit) are as follows:

	Year Ended December 31,		
(In thousands)	2018	2017	2016
Current:			
Federal	$(383)	$(1,084)	$ 13
State	1	1	1
Total	(382)	(1,083)	14
Deferred:			
Federal	—	—	—
State	—	—	—
Total	—	—	—
Income tax provision (benefit)	$(382)	$(1,083)	$ 14

The reconciliation of the statutory federal income tax rate to the Company’s effective tax rate is as follows:

	Year Ended December 31,		
	2018	2017	2016
Tax at statutory federal rate	21%	35%	35%
State tax—net of federal benefit	9%	1%	1%
Tax credits	18%	12%	8%
Stock compensation	(25)%	(7)%	(2)%
Change in valuation allowance	(13)%	90%	(42%)
Transaction costs	(4)%	—	—
Impact of corporate rate change on deferred taxes	—	(129)%	—
Other	(1)%	1%	—
Income tax (provision) benefit	5%	3%	— %

Net deferred tax assets as of December 31, 2018 and 2017 consist of the following:

(In thousands)	Year Ended December 31, 2018	2017
Deferred tax assets:		
Net operating loss carryforwards	$ 63,011	$ 54,931
Accruals	733	643
Tax credit carryovers	65,719	63,406
Deferred revenue	778	30,259
Other	3,049	3,643
Gross deferred tax assets	133,290	152,882
Deferred tax liability	—	—
Valuation allowance	(133,290)	(152,882)
Net deferred tax assets	$ —	$ —

The valuation allowance decreased by $19.6 million and $32.1 million for the years ended December 31, 2018 and 2017, respectively. The tax benefit of deductible temporary differences or carryforwards is recorded as a deferred tax asset to the extent that management assesses the realization is “more likely than not.” Future realization of the tax benefit ultimately depends on the existence of sufficient taxable income within the period available under the tax law. At December 31, 2018 and 2017, the Company has set up valuation allowances against all federal and state deferred tax assets because based on all available evidence, these deferred tax assets are not more likely than not to be realizable.

On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes included the reduction of the federal corporate income tax rate from 35% to 21% and the repeal of corporate AMT. The Company recorded $1.1 million as income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The company expects a portion of the AMT to be refunded in the following 12 months.

On December 22, 2017, SEC Staff Accounting Bulletin No. 118 (SAB 118) was issued to address the application of US GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. The impact of the Act was finalized during the year ended December 31, 2018, and no change was made from the previously reported provisional amount.

At December 31, 2018, the Company had federal net operating loss carryforwards related to the 2018 tax year, amounting to $39.1 million which carryforward indefinitely and $228.6 million which begin to expire in 2023. At December 31, 2018, the Company had state net operating loss carryforwards of $97.2 million, which begin to expire in 2028, if not utilized. At December 31, 2018, the Company also had federal and California research and development credit carryforwards aggregating approximately $25.4 million and $19.8 million, respectively. The federal credits will expire in 2025, if not utilized. California research and development credits have no expiration date. At December 31, 2018, the Company also had federal orphan drug credit and AMT carryforwards of approximately $39.3 million and $1.5 million, respectively. The federal orphan drug credits will begin to expire in 2034, if not utilized.

Under Sections 382 and 383 of Internal Revenue Code of 1986, as amended (Code), if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income and taxes may be limited. In general, an “ownership change” occurs if there is

a cumulative change in our ownership by “5% shareholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. The Company in the past experienced an ownership change which has impacted its ability to fully realize the benefit of these net operating loss carryforwards. If the Company experiences additional ownership changes as a result of future transactions in its stock, then the Company may be further limited in its ability to use its net operating loss carryforwards and other tax assets to reduce taxes owed on the net taxable income that the Company earns. Any such limitations on the ability to use its net operating loss carryforwards and other tax assets could adversely impact our business, financial condition and operating results.

The Company recognizes the financial statements effects of a tax position when it is more likely than not, based on technical merits, that the position will be sustained upon examination.

A reconciliation of the Company’s unrecognized tax benefits is as follows:

	December 31,		
(In thousands)	2018	2017	2016
Balance at beginning of year	$16,658	$14,260	$10,022
Increase related to current year tax provision	628	2,398	4,238
Increase related to prior year tax provision	—	—	—
Decrease related to prior year tax provision	(297)	—	—
Balance at end of year	$16,989	$16,658	$14,260

The unrecognized tax benefits, if recognized and in absence of full valuation allowance, would impact the income tax provision by $16.2 million and $15.9 million as of December 31, 2018 and 2017, respectively. As of December 31, 2018, the Company does not believe that it is reasonably possible that its unrecognized tax benefits would significantly change in the following 12 months.

The Company has elected to include interest and penalties as a component of tax expense. The Company recorded $15,000 and $14,000 of interest and penalties for the years ended December 31, 2017 and 2016, respectively. The Company recorded an income tax benefit of $86,000 as a result of lapse of statute of limitations for the year ended December 31, 2018. The Company recorded a liability for interest and penalties of $86,000 as of December 31, 2017. There is no liability recorded for interest and penalties as of December 31, 2018.

The Company files federal and state income tax returns in the U.S. and California. Tax years from 2004 forward remain open to examination due to the carryover of net operating losses and other tax attributes.

14. Net Loss per Common Share

The following outstanding common stock equivalents were excluded from the computation of diluted net loss per common share for the periods presented because including them would have been antidilutive:

	Year Ended December 31,		
(In thousands)	2018	2017	2016
Options to purchase common stock	4,145	5,217	4,325
RSUs	306	880	576
	4,451	6,097	4,901

15. Selected Quarterly Financial Data (Unaudited)

Selected quarterly results from operations for the years ended December 31, 2018 and 2017 are as follows:

	2018 Quarter Ended			
(In thousands, except per share amounts)	March 31	June 30	September 30	December 31
Total revenue	$ 7,849	$ 6,870	$ 19,518	$ 10,184
Operating expenses	13,781	11,758	13,727	15,200
Net income (loss)	(5,574)	(3,976)	6,115	(4,666)
Basic and diluted net income (loss) per common share	$ (0.15)	$ (0.10)	$ 0.16	$ (0.12)

	2017 Quarter Ended			
(In thousands, except per share amounts)	March 31	June 30	September 30	December 31
Total revenue	$ 6,213	$ 6,195	$ 5,106	$ 20,640
Operating expenses	28,971	21,630	16,131	12,395
Net loss	(22,608)	(15,225)	(10,692)	9,463
Basic and diluted net income (loss) per common share	$ (0.61)	$ (0.40)	$ (0.28)	$ 0.25

16. Potential Business Combination with Mereo BioPharma

On December 5, 2018, the Company entered into an Agreement and Plan of Merger and Reorganization (the “Merger Agreement”) with Mereo BioPharma Group plc, a public limited company incorporated under the laws of England and Wales (“Mereo”), Mereo US Holdings Inc., a Delaware corporation and a wholly-owned subsidiary of Mereo (“HoldCo”), and Mereo MergerCo One Inc., a Delaware corporation and an indirect wholly-owned subsidiary of Mereo (“Merger Sub”), pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into OncoMed, with OncoMed surviving the merger as a wholly owned subsidiary of HoldCo, and an indirect wholly-owned subsidiary of Mereo (the “Merger”). The respective boards of directors of OncoMed and Mereo have each unanimously approved the Merger Agreement. The parties expect the Merger will be completed in the second quarter of 2019.

17. Subsequent Events

In January 2019, the Company signed an agreement to sublease a specified portion of the Company’s office facility located in Redwood City, California. The sublease has a term of 12 months through the end of 2019. The aggregate sublease proceeds for the term of the lease are approximately $0.8 million.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION OF MEREO BIOPHARMA GROUP PLC

The following unaudited pro forma condensed combined financial information is comprised of the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019, after giving effect to the merger of Mereo MergerCo One Inc. and OncoMed Pharmaceuticals, Inc. ("OncoMed"), with OncoMed surviving as a wholly-owned subsidiary of Mereo US Holdings Inc., and as an indirect wholly-owned subsidiary of Mereo BioPharma Group plc ("Mereo") (the "Merger") as if it had occurred on January 1, 2018.

The Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared using the principles of the acquisition method of accounting in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"), and in particular IFRS 3—Business Combinations ("IFRS 3"), under which the Merger qualifies as the acquisition of OncoMed by us. On the date of the acquisition, April 23, 2019, the identifiable assets and liabilities of OncoMed, were recorded by us at their respective fair values.

Pro forma adjustments reflected in the Unaudited Pro Forma Condensed Combined Statement of Operations are based on items that are factually supportable and directly attributable to the Merger and which are expected to have a continuing impact on the consolidated entity.

The Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 has been prepared based on (i) our audited consolidated financial statements as of and for the year ended December 31, 2018 and (ii) the audited financial statements of OncoMed as of and for year ended December 31, 2018. The Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019 has been prepared based on (i) our unaudited consolidated interim financial statements as of and for the period ended June 30, 2019 and (ii) financial information received by us relating to OncoMed for the period January 1, 2019 through April 23, 2019.

Our consolidated financial statements are prepared in accordance with IFRS as issued by the IASB. The audited financial statements of OncoMed as of and for the year ended December 31, 2018 and financial information received by us relating to OncoMed for the period January 1, 2019 through April 23, 2019 was prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") and for the purposes of the Unaudited Pro Forma Condensed Combined Statement of Operations, have been converted to IFRS as issued by the IASB on a basis consistent with the accounting policies and presentation adopted by us.

As noted above, the Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared using the acquisition method of accounting in accordance with IFRS 3. The accounting for the acquisition is dependent upon certain valuations that are preliminary and subject to change. We will finalize amounts as we obtain the information necessary to complete the measurement processes. Accordingly, the pro forma adjustments are preliminary. Differences between these preliminary estimates and the final acquisition accounting may occur and these differences could be material. The differences, if any, could have a material impact on the accompanying Unaudited Pro Forma Condensed Combined Statement of Operations and our future results of operations and financial position.

The Unaudited Pro Forma Condensed Combined Statement of Operations has been prepared by our management in accordance with Securities and Exchange Commission ("SEC") Regulation S-X Article 11 for illustrative purposes only. The Unaudited Pro Forma Condensed Combined Statement of

Operations does not purport to represent what the actual results of our operations would have been had the Merger occurred on the respective dates assumed, nor is it indicative of the future results of the consolidated company. The Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019 do not reflect any cost savings, operating synergies or revenue enhancements that the combined company may achieve as a result of the Merger. The pro forma adjustments reflected in the accompanying Unaudited Pro Forma Condensed Combined Statement of Operations reflect estimates and assumptions made by our management that we believe to be reasonable.

Unaudited Pro Forma Condensed Combined Statement of Operations
for the year ended December 31, 2018

	Historical financial information		Pro form adjustment				Pro forma condensed combined statement of operations
	Mereo	OncoMed	IFRS Reclassification and Conversion		Other		
Collaboration and other revenue	**—**	**33,243**	—		—		**33,243**
Research and development expenses	**(22,704)**	**(25,776)**	(693)	A	—		**(48,285)**
			888	B	—		
General and administrative expenses	**(12,505)**	**(13,599)**	(693)	A	2,433	C	**(23,476)**
			888	B	—		
Restructuring charges	**—**	**(1,385)**	1,385	A	—		**—**
Operating loss	**(35,209)**	**(7,517)**	1,775		2,433		**(38,518)**
Finance charge	**(2,361)**	**—**	—		—		**(2,361)**
Finance income	**307**	**1,169**	—		—		**1,476**
Net foreign exchange gain/(loss)	**(44)**	**—**	—		—		**(44)**
Net loss before tax:	**(37,307)**	**(6,348)**	1,775		2,433		**(39,447)**
Taxation	**5,277**	**286**	—				**5,563**
Loss attributable to equity holders of Mereo:	**(32,030)**	**(6,062)**	1,775		2,433		**(33,884)**
Basic and diluted loss per share	**(0.45)**	**—**	—		—		**(0.35)**
Shares used to compute net loss per ordinary share, basic and diluted	**71,144,786**	**—**	—		24,783,320		**95,928,106**

Unaudited Pro Forma Condensed Combined Statement of Operations
for the period ended June 30, 2019

	Historical financial information		Pro form adjustment				Pro forma condensed combined statement of operations
	Mereo	OncoMed	IFRS Reclassification and Conversion		Other		
Collaboration and other revenue	**—**	**3,288**	—		—		**3,288**
Research and development expenses	**(11,918)**	**(3,829)**	(687)	B	—		**(16,434)**
			(1,852)	B	1,852	B	
General and administrative expenses	**(9,107)**	**(7,576)**	(687)	B	2,645	C	**(10,287)**
			(1,852)	B	3,898	C	
	—	**—**	—		1,852	B	**—**
Operating loss	**(21,025)**	**(8,117)**	(5,078)		10,247		**(23,973)**
Gain on bargain purchase adjustment	**3,680**	**—**	—		(3,680)	D	**—**
Finance charge	**(1,454)**	**(499)**	—		—		**(1,953)**
Finance income	**137**	**253**	—		—		**390**
Net foreign exchange gain/(loss)	**(2)**	**—**	—		—		**(20)**
Net loss before tax:	**(18,682)**	**(8,363)**	(5,078)		6,567		**(25,556)**
Taxation	**2,459**	**(14)**	—		—		**2,445**
Loss attributable to equity holders of Mereo:	**(16,223)**	**(8,377)**	(5,078)		6,567		**(23,111)**
Basic and diluted loss per share	**(0.22)**	**—**	—		—		**(0.24)**
Shares used to compute net loss per ordinary share, basic and diluted							

Notes to the Unaudited Pro Forma Condensed Combined Statement of Operations

1. Basis of presentation

The Unaudited Pro Forma Condensed Combined Statement of Operations are based on Mereo's and OncoMed's historical financial information as adjusted to give effect to the Merger, which will be accounted for under the acquisition method of accounting, and the alignment of OncoMed's accounting policies to those of Mereo, the accounting acquirer. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2018 and interim period ended June 30, 2019 give effect to the Merger as if it had occurred on January 1, 2018.

2. OncoMed's financial information—Currency Adjustment

The consolidated financial statements of OncoMed were presented in U.S. dollars. For purposes of preparing the Unaudited Pro Forma Condensed Combined Statement of Operations, the consolidated financial statements were translated from U.S. dollars to pound sterling, Mereo's presentation currency, using the following exchange rates for the periods below, calculated from data obtained from the United States Federal Reserve.

• Average Exchange Rate from January 1, 2018 to December 31, 2018	1.3363
• Average Exchange Rate from January 1, 2019 to June 30, 2019	1.2941

3. OncoMed financial information—U.S. GAAP to IFRS Adjustment and Reclassifications

The consolidated financial statements of OncoMed were prepared in accordance with U.S. GAAP. For the purposes of the Unaudited Pro Forma Condensed Combined Statement of Operations, certain adjustments have been made to convert the financial information of OncoMed from U.S. GAAP to IFRS as issued by the IASB ("IFRS Reclassification and Conversion Adjustments").

On January 1, 2019, OncoMed adopted ASC 842 (Leases). The nature and effect from the adoption of ASC 842 (Leases) within the historic financial information of OncoMed, as presented in the Unaudited Pro Forma Condensed Combined Statement of Operations, was a depreciation charge for the right-of-use asset within general and administrative expenditure of £0.4 million and a finance charge on the lease liability of £0.5 million. OncoMed's lease portfolio is a single-leased premise, for which no IFRS Reclassification and Conversion Adjustment is required under IFRS 16 (Leases).

Pro forma adjustments

A summary of the pro forma adjustments recognized within the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 and interim period ended June 30, 2019 are presented below, with reference by letter key:

	Year ended December 31, 2018	*Interim period ended June 30, 2019*
A	**Restructuring provision** OncoMed recorded restructuring costs for the year ended December 31, 2018 as a single line in its statement of operations, however, to align to the functional presentation of Mereo's statement of operations, an adjustment has been made to reclassify OncoMed's £1.4 million total expense from "Restructuring charges" to "Research and development expenses" and	**Restructuring provision** For the interim period ended June 30, 2019, OncoMed restructuring costs were presented within "Research and development expenses" and "General and administrative expenses", with no reclassification adjustment required.

	Year ended December 31, 2018	*Interim period ended June 30, 2019*
	"General and administrative expenses" of £0.7 million and £0.7 million, respectively.	
B	**Share-based payment awards** OncoMed issued a number of share-based payment awards with graded vesting features that contain only a service condition. As permitted under U.S. GAAP, OncoMed made an accounting policy election to record compensation expense for these awards on a straight-line basis over the entire vesting term of the grant, however, IFRS as issued by the IASB requires that compensation expense be recorded to reflect the vesting as it occurs for each tranche/instalment within the grant over the vesting period of that tranche/instalment. As a result, and due to the number of cancellations and forfeitures of the share-based payment awards during the year ended December 31, 2018 for which expense was reversed, the amount of expense recorded under IFRS as issued by the IASB is lower. Accordingly, a reduction of £0.9 million of expense has been reflected in "Research and development expenses" and a reduction of £0.9 million of expense has been reflected in "General and administrative expenses" in the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018.	**Share-based payment awards** Immediately prior to the closing of the Merger with OncoMed on April 23, 2019, all share-based payment awards were cancelled. The cancellation was a result of the Merger and was only effected because the Merger occurred. Therefore, the impact of the cancellation is directly attributable to the Merger and is deemed non-recurring. IFRS Reclassification and Conversion Adjustments therefore include: • An amount of £1.4 million recognized (£0.7 million within "Research and development expenses" and the remaining £0.7 million within "General and administrative expenses") relating to a share-based payment charge under IFRS 2 for the period within the interim period ended June 30, 2019 prior to the cancellation date on April 23, 2019; and • An amount of £3.7 million recognized (£1.85 million within "Research and development expenses" and the remaining £1.85 million within "General and administrative expenses") relating to the cancellation of the share-based payment awards on April 23, 2019 and the resultant acceleration charge from the immediate vesting required under IFRS 2. The £3.7 million recognized relating to the cancellation of the share-based payment awards on April 23, 2019 is a non-recurring charge that is directly attributable to the Merger. Therefore, the charge is an adjusting item within the Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019. of Operations as the charge is non-recurring and directly attributable to the Merger.

	Year ended December 31, 2018	*Interim period ended June 30, 2019*
C	**Transaction costs** £2.4 million has been eliminated from “General and administrative expenses” within the Unaudited Pro Forma Condensed Combined Statement of Operations for the year ended December 31, 2018 which represents non-recurring transactions costs incurred in relation to the Merger.	**Transaction costs** £6.5 million has been eliminated from “General and administrative expenses” within the Unaudited Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019 which represents non-recurring transactions costs incurred in relation to the Merger.
D	**Gain on bargain purchase** Not recognized in the year ended December 31, 2018 as the transaction closed in 2019.	**Gain on bargain purchase** Upon the closing of the Merger of OncoMed, a gain on bargain purchase of £3.7 million was recognized. As this is a non-recurring gain that is directly attributable to the Merger, the gain is an adjusting item within the Pro Forma Condensed Combined Statement of Operations for the interim period ended June 30, 2019.
E	**Weighted average shares** Represents the increase in the weighted average shares in connection with the issuance of 24,783,320 ordinary shares on April 23, 2019 to finance the acquisition. For the purposes of the pro forma disclosure, the shares issued to finance the acquisition are assumed to have been issued from the start of the period presented (i.e., January 1, 2018).	**Weighted average shares** Represents the increase in the weighted average shares in connection with the issuance of 24,783,320 ordinary shares on April 23, 2019 to finance the acquisition. For the purposes of the pro forma disclosure, the shares issued to finance the acquisition are assumed to have been issued from the start of the period presented (i.e., January 1, 2019).

17,902,082 American Depositary Shares
Representing 89,510,410 Ordinary Shares

PRELIMINARY
PROSPECTUS

, 2020

PART II—INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 6. Indemnification of directors and officers

The Articles of Association of Mereo BioPharma Group plc ("Mereo," the "Company" or the "registrant") provide that Mereo may indemnify the directors and other officers of Mereo in respect of any proceedings, whether civil or criminal, brought against them by reason of their being directors or officers of Mereo and to the fullest extent permitted by the Companies Act 2006 of the United Kingdom ("CA 2006").

Generally, under CA 2006, any provision by which Mereo directly or indirectly provides an indemnity (to any extent) for a director of Mereo or of an "associated company" (i.e., a company that is a parent, subsidiary or sister company of Mereo) against any liability attaching to him or her in connection with any negligence, default, breach of duty or breach of trust in relation to the company of which he or she is a director is (subject to certain exceptions specified under CA 2006) void.

Mereo has entered into a deed of indemnity with each of its directors. Except as prohibited by applicable law, these deeds of indemnity may require Mereo, among other requirements, to indemnify its directors and executive officers for certain expenses, including attorneys' fees, costs and expenses incurred by such directors and executive officers with the prior written consent of Mereo in any action or proceeding arising out of their service as a director or executive officer of Mereo, or one of its subsidiaries.

Mereo maintains directors' and officers' insurance coverage, which, subject to policy terms and limitations, is expected to include coverage to reimburse Mereo for amounts that it may be required or permitted by law to pay directors or officers of Mereo.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended (the "Securities Act"), may be permitted to directors, officers or persons controlling Mereo pursuant to the foregoing provisions, Mereo has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 7. Recent sales of unregistered securities

In the three years preceding the filing of this registration statement, the Company has issued the following securities that were not registered under the Securities Act:

Issuance of Share Capital

- On April 3, 2017, the registrant issued 5,042,017 ordinary shares of nominal value £0.003 each to new and existing investors for aggregate consideration of £15.0 million.
- On April 26, 2017, the registrant issued 1,221,361 ordinary shares of nominal value £0.003 each upon the conversion of £1.4 million of Novartis Notes (as defined below).
- On October 31, 2017, the registrant issued 490,798 ordinary shares of nominal value £0.003 each to a new investor in connection with a licensing agreement.
- On June 1, 2018, the registrant issued 50,076 ordinary shares of nominal value £0.003 each to new and existing investors for aggregate consideration of £150,228.
- On July 23, 2018, the registrant issued 10,000 ordinary shares of nominal value £0.003 each to certain former employees of the registrant upon the exercise of share options.
- Under the public offering dated June 1, 2018, the registrant issued and allotted 50,076 ordinary shares of £0.003 in nominal value each on June 1, 2018 at a price of £3.00 per share to investors. Gross cash received was £150,228.

- On August 3, 2018, the registrant issued and allotted 10,000 ordinary shares of £0.003 in nominal value each pursuant to an exercise of employee share options.
- On October 22, 2018, the registrant issued and allotted 85,222 ordinary shares of £0.003 in nominal value each pursuant to an exercise of employee share options.
- On June 21, 2019, the registrant issued 1,936,030 ordinary shares of £0.003 in nominal value each upon the conversion of £2.4 million of Novartis Notes.
- On February 10, 2020, the registrant issued warrants to purchase 1,449,614 ordinary shares of £0.003 in nominal value each to existing investors in connection with the New Novartis Notes.
- On February 10, 2020, the registrant issued 14,295,520 ordinary shares (equivalent to 2,859,104 ADSs) of £0.003 in nominal value each to the selling shareholder for $3.0 million.
- On February 19, 2020, the registrant issued 12,252,715 ordinary shares (equivalent to 2,450,543 ADSs) of £0.003 in nominal value each to Boxer Capital, LLC.

No underwriters were used in the foregoing transactions. The sales of securities described above were made in reliance upon the exemptions from registration provided by Regulation S under the Securities Act, Rule 144A under the Securities Act (before the Registrant's ADSs became listed on Nasdaq) and/or Section 4(a)(2) of the Securities Act (including Regulation D promulgated thereunder). All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

Grants and Exercises of Options and Restricted Share Awards

On April 26, 2018, the Company granted 100,817 options under the Deferred Bonus Share Plan to certain directors and certain other persons discharging managerial responsibility. The weighted average fair value of options granted was £3.23. The exercise price is £nil.

On May 2, 2018, the Company granted 303,000 options to certain employees under the Mereo BioPharma Group plc Share Option Plan. The weighted average fair value of options granted was £2.38. The exercise price is £3.25.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act or Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The ordinary shares and ADSs issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

Issuance of Notes

On April 6, 2017, Novartis delivered to the Company a notice of conversion with respect to £1,398,552 aggregate principal amount of Novartis Notes. Pursuant to such notice, on April 26, 2017, £1,398,552 aggregate principal amount of Novartis Notes was converted into 632,829 fully paid ordinary shares. Additionally, in connection with such conversion, the Company issued 588,532 ordinary shares to Novartis.

On June 6, 2019, Novartis delivered to the Company a notice of conversion with respect to the aggregate principal amount and interest of the Novartis Notes. Pursuant to such notice, on June 21, 2019 the aggregate principal amount and interest of £2,367,004 due under the Novartis Notes was converted into 1,071,042 fully paid ordinary shares at the fixed conversion price of £2.21 per share. Additionally, in connection with such conversion, the Company issued 864,988 ordinary shares to Novartis. At June 30, 2019 there was no further liability under the Novartis Notes which were converted in full as at that date.

On February 10, 2020, the Company entered into a convertible loan note instrument relating to the issue of 3,841,479 New Novartis Notes to Novartis. The New Novartis Notes are convertible at any time at a fixed price of £0.265 per ordinary share. The New Novartis Notes are convertible at any time at a fixed price of £0.265 per ordinary share. The New Novartis Notes included an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

Warrants

The registrant has issued the following warrants under the Original Loan Agreement and the New Loan Agreement (each as defined in this registration statement) to Silicon Valley Bank or Kreos Capital V (UK) Limited, as the case may be.

- On August 21, 2017, the registrant issued warrants to purchase 363,156 ordinary shares at an exercise price of £3.029 each.
- On December 29, 2017, the registrant issued warrants to purchase 333,334 ordinary shares at an exercise price of £3.300 each.
- On October 1, 2018, the registrant issued warrants to purchase 225,974 ordinary shares at an exercise price of £2.31 each.
- On May 7, 2019, the registrant issued warrants to purchase 321,444 ordinary shares at an exercise price of £2.95 each.

In addition, on October 8, 2018, the registrant issued warrants to purchase 41,286 ordinary shares at an exercise price of £0.03 each to The Alpha-1 Project, Inc. in connection with the funding agreement entered into with such entity.

In addition, on February 10, 2020, the Company entered into a warrant instrument with Novartis to issue 1,449,614 ordinary shares at a weighted average exercise price of £0.265 per ordinary share. These warrants will be capable of exercise until February 10, 2025. The warrants include an adjustment provision to prevent the dilution of the ordinary shares issuable to Novartis under certain circumstances.

All of the foregoing issuances were made outside of the United States pursuant to Regulation S or to U.S. entities pursuant to Section 4(a)(2) of the Securities Act.

Item 8. Exhibits and financial statements

(a) **Exhibits.** The exhibits to this registration statement are listed in the Exhibit Index to this registration statement and incorporated herein by reference.

(b) **Financial Statement Schedules.** Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in our combined financial statements or the notes thereto.

Item 9. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) (§ 230.424(b) of this

chapter) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and a(l)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Exchange Act of 1934 need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in

the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

Exhibit Number	Exhibit Description
3.1	Articles of Association (incorporated by reference to Exhibit 3.1 to the registrant's registration statement on Form F-4 filed with the SEC on January 25, 2019 (File No. 333-229351)).
4.1	Form of Deposit Agreement (incorporated by reference to Exhibit 4.2 to the registrant's registration statement on Form F-4 filed with the SEC on January 25, 2019 (File No. 333-229351)).
4.2	Form of American Depositary Receipt (included in Exhibit 4.1).
5.1*	Opinion of Mayer Brown International LLP
10.1	Securities Purchase Agreement, dated February 10, 2020, by and between Mereo BioPharma Group PLC and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 10.1 to the registrant's report on Form 6-K filed with the SEC on February 10, 2020 (File No. 001-38452)).
10.2	Registration Rights Agreement, dated February 10, 2020, by and between Mereo BioPharma Group PLC and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 10.2 to the registrant's report on Form 6-K filed with the SEC on February 10, 2020 (File No. 001-38452)).
10.3	Securities Purchase Agreement, dated February 19, 2020, by and between Mereo BioPharma Group PLC and Boxer Capital, LLC (incorporated by reference to Exhibit 10.1 to the registrant's report on Form 6-K filed with the SEC on February 19, 2020 (File No. 001-38452)).
10.4	Registration Rights Agreement, dated February 19, 2020, by and between Mereo BioPharma Group PLC and Boxer Capital, LLC (incorporated by reference to Exhibit 10.2 to the registrant's report on Form 6-K filed with the SEC on February 19, 2020 (File No. 001-38452)).
21.1	List of Subsidiaries (incorporated by reference to Exhibit 8.1 to the registrants Annual Report on Form 20-F for the year ended December 31, 2018, filed with the SEC on April 29, 2019 (File No. 001-38452)).
23.1*	Consent of Ernst & Young LLP (UK), Independent Registered Public Accounting Firm
23.2*	Consent of Ernst & Young LLP (US), Independent Registered Public Accounting Firm
23.3	Consent of Mayer Brown International LLP (included in Exhibit 5.1)
24.1*	Powers of Attorney

* Previously filed.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in London, the United Kingdom on March 12, 2020.

MEREO BIOPHARMA GROUP PLC

By: /s/ Denise Scots-Knight, Ph.D.
Name: Denise Scots-Knight, Ph.D.
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons on March 12, 2020 in the capacities indicated:

Name	Title
*	Chief Executive Officer and Member of the Board (Principal Executive Officer)
Denise Scots-Knight, Ph.D.	
*	Chief Financial Officer and Member of the Board (Principal Financial Officer and Principal Accounting Officer)
Richard Jones	
*	Chairman of the Board
Peter Fellner, Ph.D.	
*	Member of the Board
Peter Bains	
*	Member of the Board
Paul Blackburn	
*	Member of the Board
Anders Ekblom, M.D., Ph.D.	
*	Member of the Board
Kunal Kashyap	
*	Member of the Board
Deepika R. Pakianathan, Ph.D.	
*	Member of the Board
Michael S. Wyzga	

*By: /s/ Denise Scots-Knight, Ph.D.
Name: Denise Scots-Knight, Ph.D.
Title: Attorney-in-fact

SIGNATURE OF AUTHORIZED U.S. REPRESENTATIVE OF REGISTRANT

Pursuant to the requirements of the Securities Act of 1933, as amended, the undersigned, the duly authorized representative in the United States of Mereo BioPharma Group plc has signed this registration statement on March 12, 2020.

Mereo US Holdings Inc.

By: /s/ Denise Scots-Knight, Ph.D.
Name: Denise Scots-Knight, Ph.D.
Title: President