

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number 001-38452

MEREO BIOPHARMA GROUP PLC

(Exact name of Registrant as specified in its charter)

England and Wales

Not Applicable

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

**One Cavendish Place, 4th Floor
London, W1G 0QF
United Kingdom**

+44-333-023-7300

(Address of principal executive offices)

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
American Depositary Shares, each representing five ordinary shares, nominal value of £0.003 per share	MREO	The Nasdaq Stock Market LLC
Ordinary Shares, nominal value of £0.003 per share		The Nasdaq Stock Market LLC*

* Not for trading, but only in connection with the registration of American Depositary Shares representing such Ordinary Shares pursuant to the requirements of the U.S. Securities and Exchange Commission.

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
Emerging growth company

If an emerging growth company, 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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2023, the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$143,781,100.

As of February 29, 2024 the number of outstanding ordinary shares, par value £0.003 per share, of the registrant was 701,287,029.

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CERTAIN DEFINITIONS

Unless otherwise indicated and except where the context otherwise requires, references in this Annual Report on Form 10-K (defined below) to:

- “AATD” are to alpha-1 antitrypsin deficiency, a lack of alpha 1 anti-trypsin protein, a protein made by the liver that’s released into the bloodstream to protect the body from neutrophil serine proteases damaging the lungs;
- “Acumapimod” are to an oral p38 MAP kinase inhibitor for potential treatment of AECOPD;
- “Alvelestat” are to an oral neutrophil elastase inhibitor for potential treatment of AATD;
- “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 evidence our ADSs;
- “AECOPD” are to acute exacerbation of chronic obstructive pulmonary disease;
- “BLA” are to Biologics License Application;
- “CMA” are to Conditional Marketing Authorization;
- “CMO” are to contract manufacturing organization;
- “COPD” are to chronic obstructive pulmonary disease, the name for a group of lung conditions that cause breathing difficulties;
- “CRO” are to contract research organization;
- “DTC” are to Depository Trust Company;
- “EMA” are to European Medicines Agency;
- “Etigilimab” are to an anti-TIGIT designed to activate the immune system through multiple mechanisms and enable anti-tumor activity;
- “Exchange Act” are to the United States Securities and Exchange Act of 1934;
- “Feng Biosciences” are to Feng Biosciences, Inc. In 2023, OncXerna Therapeutics, Inc. (“OncXerna”) was renamed as Feng Biosciences, Inc.;
- “FDA” are to the United States Food and Drug Administration;
- “HH” are to hypogonadotropic hypogonadism, a condition in which the male testes or the female ovaries produce little or no sex hormones;
- “Leflutroazole” are to an oral aromatase inhibitor for potential treatment of male infertility associated with HH;
- “MAA” are to Marketing Authorization Application;
- “Mereo,” the “Company,” the “Group,” “we,” “our,” “ours,” “us” or similar terms are to Mereo BioPharma Group plc, together with its subsidiaries;
- the “Merger” are 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, and in 2020 OncoMed was renamed as Mereo BioPharma 5, Inc. (“Mereo BioPharma 5”);
- 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;
- “Navi” are to Navicixizumab;
- “NDA” are to New Drug Application;
- “NE” neutrophil elastase, a serine protease and a major constituent of lung elastolytic activity;
- “OI” are to osteogenesis imperfecta a rare genetic bone disorder characterized by fragile bones that break easily, also known as brittle bone disease;

- “ordinary shares” are to our ordinary shares, each of £0.003 nominal value;
- “SEC” are to the United States Securities and Exchange Commission;
- “Setrusumab” are to a fully human monoclonal antibody for potential treatment of OI;
- “\$,” “USD,” “US\$” and “U.S. dollar” are to the United States dollar;
- “TIGIT” are to T-cell immunoreceptor with Ig and ITIM domains;
- “Ultragenyx” are to Ultragenyx Pharmaceutical, Inc.;
- “U.S. GAAP” are to accounting principles generally accepted in the United States of America; and
- “£,” “GBP,” “pound sterling,” “pence” and “p” are to the British pound sterling (or units thereof).

GENERAL INFORMATION

In this Annual Report on Form 10-K (“Annual Report”), “Mereo,” the “Group,” the “Company,” “we,” “us” and “our” refer to Mereo BioPharma Group plc and its consolidated subsidiaries, except where the context otherwise requires. “Mereo,” the Mereo logo and other trademarks, trade names or service marks of Mereo appearing in this Annual Report are the property of Mereo.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report contains forward-looking statements that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements other than statements of historical facts contained in this Annual Report are forward-looking statements. In some cases, you can identify forward-looking statements by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect” or the negative of these words or other comparable terminology.

Any forward-looking statements in this Annual Report reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under Part I, Item 1A. Risk Factors and elsewhere in this Annual Report. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This Annual Report also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources.

SUMMARY RISK FACTORS

You should carefully consider the risks and uncertainties described below, together with the other information contained in this Annual Report, before making any investment decision. Any of the following risks and uncertainties could have a material adverse effect on our business, prospects, results of operations and financial condition. The market price of our ADSs could decline due to any of these risks and uncertainties, and you could lose all or part of your investment. The risks described below are those that we currently believe may materially affect us. We may face additional risks and uncertainties not currently known to us or that we currently deem to be immaterial.

- We have a limited operating history and have never generated any revenue from product sales.
- 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 setrusumab, alvelestat and etigilimab. We cannot give any assurance that any of these product candidates will receive regulatory approval, which is necessary before they can be commercialized. If we are unable to commercialize setrusumab, alvelestat and etigilimab, whether on our own or through agreements with third parties, or experience significant delays in doing so, our ability to generate revenue and our financial condition will be adversely affected.
- Our future growth and ability to compete depends on retaining our key personnel and recruiting additional qualified personnel.

- 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.
- 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.
- 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.
- 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.
- We intend to directly commercialize or co-commercialize our product candidates for rare diseases and to out-license or sell our other product candidates for further development and/or commercialization. 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.
- 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.
- Our existing and future product candidates may not gain market acceptance, in which case our ability to generate revenues from product sales will be compromised.
- We rely, and expect to continue to rely, on our partners to develop and commercialize our licensed or partnered product candidates. If our partners do not secure adequate funding or satisfy their obligations under our agreements with them, or if they terminate our licenses, partnerships or collaborations with them, we may not be able to develop or commercialize our licensed or partnered product candidates as planned.
- 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 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 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.
- 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 business and operations may suffer, and proprietary information may be lost, in the event of information technology system failures, cyberattacks or deficiencies in our cybersecurity.
- Unlike in prior years, as of January 1, 2024, we are required to comply with the domestic reporting regime under the Exchange Act and will incur significant legal, accounting and other expenses, and our management will be required to devote substantial additional time to new compliance initiatives and corporate governance matters.
- Failure to establish and maintain effective internal controls could have a material adverse effect on our business and stock price.

Item 1. Business

Overview

We are a biopharmaceutical company focused on the development of innovative therapeutics for rare diseases. We have developed a portfolio of late-stage clinical product candidates. Our two rare disease product candidates are setrusumab for the treatment of osteogenesis imperfecta (OI) and alvelestat primarily for the treatment of severe alpha-1 antitrypsin deficiency-associated lung disease (AATD-LD). Setrusumab has received orphan designation for OI from the European Medicines Agency (EMA) and the U.S. Food and Drug Administration (FDA), PRIME designation from the EMA and has rare pediatric disease designation from the FDA. Alvelestat has received U.S. Orphan Drug Designation for the treatment of AATD and Fast Track designation for the treatment of AATD-LD.

Our strategy is to selectively acquire and develop product candidates for rare diseases that have already received significant investment from large pharmaceutical and biotechnology companies and that have substantial pre-clinical, clinical and manufacturing data packages. Since our formation in March 2015, we have successfully executed on this strategy by acquiring six clinical-stage product candidates of which four were in rare diseases and oncology. Four of our six clinical-stage product candidates were acquired from large pharmaceutical companies and two were acquired in the Merger. We have successfully completed large, randomized Phase 2 clinical trials for four of our product candidates and the Phase 1b portion of a Phase 1b/2 for a fifth product candidate.

Rare diseases represent an attractive development and, in some cases, commercialization opportunity for us since they typically have high unmet medical need and can utilize regulatory pathways that facilitate acceleration to approval and to the potential market. Development of products for rare diseases involve close collaboration with key opinion leaders and investigators, and close coordination with patient organizations. Rare disease 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 Strategy

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

- ***Rapidly develop and potentially commercialize our rare disease product candidates.*** Our rare disease product candidates setrusumab and alvelestat have been acquired or in-licensed from pharmaceutical companies following strategic de-prioritization. Prior to this they have received significant investment in preclinical, toxicology, clinical studies and CMC. We have built expertise in the areas of patient identification, clinical study design and regulatory strategy. This combination of prior investment and our expertise has allowed us to rapidly develop our two rare disease product candidates. For example, setrusumab has completed a Phase 2 in adult OI patients and our partner Ultragenyx is now enrolling two Phase 3 studies in pediatric and young adult OI patients, and alvelestat has completed two Phase 2 studies and is now progressing into Phase 3. We may seek to partner our rare disease product candidates for further development where it makes strategic sense to do so. However, as commercialization of rare disease products requires a highly specialized and focused infrastructure, we may seek to commercialize our rare disease product candidates, once approved, in select markets. For example, as part of our partnership with Ultragenyx, we have retained the commercial rights to setrusumab in Europe and the U.K.
- ***Explore out-licensing or sale opportunities with third parties for further clinical development and/or commercialization of our non-core and non-rare disease programs.*** Based on the results from the Phase 1b portion of the Phase 1b/2 clinical trial for etigilimab in select solid tumor types and the Phase 2 clinical trial for acumapimod, we plan to enter into one or more strategic relationships with third parties for etigilimab and acumapimod to undertake the next phase of clinical development and, if approved, commercialization. Our second oncology product, navicixizumab, for the treatment of late line ovarian cancer, has completed a Phase 1 study and has been partnered on a global basis with Feng Biosciences. In March 2018, we reported top-line Phase 2b data for leflutrolole for the treatment of HH and in December 2018, we reported positive results from the safety extension study for leflutrolole. In December 2023 we entered into an exclusive global license agreement with ReproNovo for the development and commercialization of leflutrolole.
- ***Continue to be a partner of choice for pharmaceutical and biotechnology companies.*** We believe that we are a preferred partner for 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 our partnership with Ultragenyx, 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 biotechnology companies and that we believe to be mutually beneficial.

- Leverage our expertise in business development.** Our senior management team has extensive relationships with large pharmaceutical and biotechnology companies. These relationships are important to us as we seek to form strategic partnerships on our product candidates and as appropriate, to grow our pipeline of product candidates in rare diseases.

Our Pipeline

The following table summarizes our pipeline for our product candidates. We have global commercial rights to alvelestat, etigilimab and acumapimod and commercial rights to setrusumab in Europe and the U.K. We granted Ultragenyx an exclusive license to develop and commercialize setrusumab in the U.S. and rest of the world, and we have licensed global rights for navicixizumab to Feng Biosciences (formerly OncXerna) and global rights for leflutrolole to ReproNovo.

Product candidate	Phase 1	Phase 2	Phase 3	
Setrusumab				
OI	Orbit (5 - <26 yrs old)		ultragenyx pharmaceutical	Orphan drug designation in US and EU, PRIME (EU), Pediatric disease Priority Review Voucher designation
	Cosmic (2 - <7 yrs old)			
Alvelestat				
AATD-LD			AI THE UNIVERSITY OF ALABAMA AT BIRMINGHAM	Orphan drug designation (US), Fast track designation (US)
BOS			NIH NATIONAL CENTER FOR ADVANCING TRANSITIONAL SCIENCES	
Etigilimab				
Rare & Gyn-Onc Tumors	ACTIVATE			
OCCC**	EON		FOCUS FUND	**Ovarian Clear Cell Carcinoma

Core Rare Disease Product Candidates

Setrusumab (BPS-804/UX143) for the Treatment of Osteogenesis Imperfecta

Overview

In collaboration with Ultragenyx, we are developing setrusumab for the treatment of OI, a rare genetic disease, which is caused by variants in the COL1A1 or COL1A2 genes, which results in bones that can break easily and is commonly known as brittle bone disease. 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, and to inhibit bone-resorption through osteoclasts, 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 an estimated 60,000 people in the U.S. and Europe, according to estimates by Orphanet.

There are eight recognized forms of OI, designated type I through type VIII. Type I is cited to be the least severe form, although patients can still have many fractures and other physical manifestations of the disease, while Type II is the most severe and frequently causes death at or shortly after birth. OI Type I is the most prevalent and estimated to occur in approximately 50% to 60% of OI patients. Type III and Type IV patients may be wheelchair bound and typically have many fractures through their lifetime. Type III and Type IV patients may also have short stature, scoliosis and hearing loss by the time they are young adults. OI is typically diagnosed at birth with most patients being born with a blue or gray tint to the sclera, the part of the eye that is usually white.

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 typically used to treat osteoporosis and are not approved for OI but are commonly used off-label in children. Bisphosphonates slow down the rate at which osteoclasts resorb bone. These anti-resorptives include Aredia (pamidronate), Fosamax (alendronate) and Reclast (zoledronic acid). Bisphosphonates have not consistently been shown to reduce fractures in OI adult patients and the effect of long-term therapy with these drugs remains unclear in both adults and 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, rodding 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.

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.

In 2016, we obtained orphan drug designation in OI for setrusumab in the U.S. and the EU and, in November 2017, the program was accepted into the Priority Medicines scheme (“PRIME”) of the EMA. In September 2020 we received rare pediatric disease designation for setrusumab in OI from the FDA. See “—Government Regulation—Foreign Government Regulation.”

Clinical Development of Setrusumab

Prior to our acquisition of setrusumab, Novartis conducted four clinical trials in 106 patients and healthy volunteers. In 2019 we completed a Phase 2b dose-finding study (ASTEROID) study of setrusumab in 112 adult patients with Type I, III and IV OI. Following the 12-month dosing part of the trial, patients were followed for a further twelve months to examine the off-effects of setrusumab. The results of this Phase 2b trial supported the progression of setrusumab into a pivotal study in OI. Setrusumab was safe and well-tolerated in the study. There were no cardiac-related safety concerns observed in the study.

Top-line Data from Setrusumab Phase 2 Portion of Phase 2/3 Orbit Study

In June 2023, we along with our partner, Ultragenyx, announced successful completion of the Phase 2 portion of the pivotal Phase 2/3 Orbit study in 24 pediatric and young adult patients (5 to <26 years old) for setrusumab in OI, which compared two different doses of setrusumab, 20 and 40 mg/kg, to determine the optimal dose for the Phase 3. The primary endpoint of the Phase 2 study was circulating levels of P1NP, a biomarker reflective of bone formation. The study also evaluated numerous other endpoints, including bone mineral density (“BMD”) and annualized fracture rates, PK and safety. Across all patients evaluated at both doses, these data showed statistically significant increases in levels of serum P1NP, a sensitive marker of bone formation, and substantial and significant improvement in BMD by three months. An increase in lumbar spine BMD from baseline of 9.4% at 20 mg/kg (n=10) was observed, with a substantial mean change in the Z-score of +0.65 from -2.12 (n=11) at baseline. There was no significant difference between the two doses tested, accordingly, the 20 mg/kg was selected as the Phase 3 dose. The changes observed in BMD in these younger patients at 3 months are equivalent to the changes following 12 months treatment with setrusumab in adult patients reported from the Phase 2b ASTEROID study. The 24 patients from the Phase 2 portion of the ORBIT study are continuing to receive setrusumab treatment in an open-label extension study.

Additional data from the Phase 2 portion of the Phase 2/3 Orbit study were reported at the annual ASBMR meeting in October 2023 and demonstrated that treatment with setrusumab significantly reduced incidence of fractures in patients with OI with at least 6 months of follow-up and continued to demonstrate ongoing and meaningful improvements in lumbar spine bone BMD. As of the cut-off date and following at least six months of treatment with setrusumab, the annualized fracture rate across all 24 patients in the Phase 2 portion of the study was reduced by 67%. The median annualized fracture rate of 0.72 in the two years prior to treatment was reduced to 0.00 (n=24, p=0.042) during the mean treatment duration period of nine months. These fractures excluded fractures of the fingers, toes, skull and face consistent with the Phase 3 study design. In the two years prior to treatment with setrusumab all patients experienced at least one fracture. Following initiation of treatment with setrusumab, 20 patients experienced no radiographic-confirmed fractures, and 4 patients experienced 7 radiographic-confirmed fractures in 5 separate events. Two of these fractures occurred within the first two months of treatment, a time in which setrusumab-induced increases in BMD may have been suboptimal in reducing fractures.

At the six-month timepoint, treatment with setrusumab resulted in a mean increase in lumbar spine BMD from baseline of 13% at 20 mg/kg (n=11) and 16% at 40 mg/kg (n=8), which represented the same substantial mean improvement in Z-score of +0.85 for both dose groups at 6 months compared to a combined mean baseline Z-score of -1.68. The small apparent difference in BMD change from baseline is likely related to differences in patients assigned to the two treated groups. There was no statistically significant difference in BMD percent change or Z-score change from baseline between the 20 and 40 mg/kg dosing cohorts. As of the data cut-off for our October 2023 announcement, there were no treatment-related serious adverse events observed in the study. The 24 patients from the Phase 2 portion of the Orbit study are continuing to receive setrusumab treatment at 20 mg/kg in an open label extension study. Additional longer-term Phase 2 data from the Orbit study are expected in the second half of 2024.

Phase 3 Orbit and Cosmic Studies

The Phase 3 portion of the Orbit study is enrolling approximately 150 patients (aged 5 - <26 years old) at 50 sites across 12 countries and is expected to complete enrollment around the end of the first quarter of 2024. Patients are randomized 2:1 to receive setrusumab (20 mg/kg) or placebo, respectively, with a primary efficacy endpoint of a reduction in annualized clinical fracture rate, excluding fingers, toes, skull and face.

A second study, Cosmic, a Phase 3 open-label study in younger children (aged 2 - < 7 years old) is enrolling approximately 60 patients, with enrollment expected to complete around the end of the first quarter of 2024. The Cosmic study is an active-controlled study evaluating the effect of setrusumab compared to intravenous bisphosphonates (IV-BP) therapy (randomized 1:1) on annualized total fracture rate.

We believe the Orbit and Cosmic trials, if successful, will support U.S. and European regulatory filings for the potential approval of setrusumab for the treatment of osteogenesis imperfecta.

Alvelestat (MPH-966) for the Treatment of Severe Alpha-1 Antitrypsin Deficiency (AATD)-Associated Lung Disease:

Overview

We are developing alvelestat for the treatment of severe AATD-associated Lung Disease (AATD-LD). AATD-LD is 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 neutrophil elastase (NE). Scientific data indicate that the increased risk of lung tissue injury in patient with AATD may be due to inadequately controlled NE caused by insufficient alpha-1 antitrypsin (AAT). We believe that by inhibiting NE, alvelestat has the potential to reduce the destruction of lung tissue and stabilize clinical deterioration in patients with severe AATD-LD 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 serum AAT levels <11 μ M, (most commonly either a PiZZ genotype or Null/Null genotype). although there are approximately only 10,000 people diagnosed in North America. The major function of AAT in the lungs is to protect the connective tissue from NE released from triggered neutrophils. The lungs are normally 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 loss of lung tissue as measured by lung density on computed tomographic (CT) scanning, a decline in FEV1, a standard measure of exhalation and poor quality of life. Respiratory disease can progress to need for chronic oxygen therapy, lung transplant and death. 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, but not for those with earlier stages of lung disease. 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. Benefit has not been demonstrated in patients with earlier stages of lung disease where there is an unmet need to reduce progression of irreversible lung tissue loss. In Europe Regulatory approval was on efficacy based on slowing of CT density decline, without effects on other measures such as FEV₁ or patient-reported outcomes. Further, AAT augmentation therapy is generally 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. Alvelestat is not being investigated for treatment of the hepatic disease which is due to the damaging effect of accumulated abnormal ZZ protein in the liver, rather than the protein deficiency. Liver disease occurs in approximately 10% cases of severe AATD, predominantly in children.

Alvelestat has received U.S. Orphan Drug Designation for the treatment of AATD and Fast Track designation in AATD-LD.

Clinical Development of Alvelestat

Prior to our license of alvelestat, AstraZeneca conducted 12 clinical trials involving 1,776 subjects, including trials in COPD, bronchiectasis and cystic fibrosis. 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. These trials created a safety database of 1,149 subjects treated with alvelestat.

Phase 2 Clinical Trials in AATD

In May 2022, we successfully completed a Phase 2, placebo-controlled, 12-week, dose-ranging, proof-of-concept clinical trial (ASTRAEUS) in 99 patients with AATD-LD in the U.S and the EU which demonstrated statistically significant changes in neutrophil elastase activity and biomarkers of disease severity at different time points up to 12 weeks. We enrolled only adult patients with PiZZ or Null/Null genotypes or rare genotypes with severe deficiency of alpha-1 antitrypsin (<11 microMolar) with confirmed emphysema, who had not received AAT augmentation therapy or had undergone a wash-out period following AAT augmentation therapy. The study examined two doses of alvelestat (120 mg and 240 mg) compared to placebo with three primary endpoints along the pathogenic pathway of lung disease in AATD patients. These primary endpoints were plasma desmosine (a biomarker of protease-driven elastin breakdown), A α -Val360, a specific biomarker of NE proteolytic activity, and neutrophil elastase activity in blood. Secondary endpoints were safety, exacerbation frequency, and pharmacokinetics. Exploratory endpoints were St. Georges Respiratory Questionnaire (SGRQ) which is a patient-reported outcome of Respiratory Health Status and lung function tests, including FEV₁.

We subsequently announced additional Phase 2 data from this study in October 2022 demonstrating the association of biomarker responders in alvelestat-treated patients to improvement in the activity domain of the St George's Respiratory Questionnaire, but not in patients treated with placebo.

No new safety signals were detected in patients with AATD-LD compared to the previous studies conducted by AstraZeneca. The most frequent adverse event was headache which was more frequently observed at the higher doses of alvelestat (120 mg and 240 mg) used in AATD-LD than at the lower doses used in previous studies in COPD, bronchiectasis and cystic fibrosis. There was evidence of tolerance to headache being induced, and we intend to use a dose-escalation regime for initiation of treatment in future trials. Monitoring for Adverse Events of Special Interest (AESIs) documented a single treatment-emergent adverse event (TEAE) of liver function abnormality (raised hepatic transaminases, without meeting Hy's Law) and one AESI of prolonged QTc, in which study-drug stopping criteria were met were reported in the ASTRAEUS trial. Both events fully resolved on study drug cessation.

In October 2023, the University of Alabama at Birmingham (UAB) and Mereo reported on the ATALANTa study, a multi-center, double-blind, placebo-controlled, proof-of-concept investigator-led study run by Professor Mark Dransfield, Director of the Division of Pulmonary, Allergy and Critical Care, UAB, in collaboration with Mereo. ATALANTa investigated the safety and efficacy of alvelestat 120 mg, or matched placebo, twice daily, for 12 weeks in a broad range of individuals with AATD-LD, including those with less severe phenotypes (Pi*SZ) and earlier stage patients than were enrolled in the Company-sponsored ASTRAEUS Phase 2 study, and those receiving augmentation therapy. The study randomized 63 patients, 32 in the 120 mg alvelestat arm (44% on augmentation therapy) and 31 in the placebo arm (48% on augmentation therapy). The results demonstrated with the 120 mg dose of alvelestat (the lower dose used in the Phase 2 ASTRAEUS study) are consistent with those observed in ASTRAEUS on blood neutrophil elastase activity and changes in the disease-activity biomarkers, desmosine and A α -val360. The data demonstrate that the 120 mg dose of alvelestat is safe on top of augmentation and support Mereo's selection of the 240 mg dose to be studied in the planned Phase 3 pivotal trial. Exploratory endpoints in ATALANTa demonstrated statistically significant improvement in SGRQ Activity score (p=0.0106 versus placebo) and a trend to improvement in SGRQ Total score at 12 weeks in patients not receiving augmentation therapy and having earlier stage lung disease (based on their FEV₁). The ATALANTa and ASTRAEUS data support the use of the SGRQ Total score in the planned Phase 3 pivotal trial and inclusion of patients with earlier stages of lung disease. Safety in ATALANTa was consistent with the known alvelestat profile and there were no liver or QTc AESIs documented.

Planned Phase 3 Clinical Trial in AATD

In March 2023, we announced the outcome of the end-of-Phase 2 discussions with the FDA and the EMA (Scientific Advice) and the guidance on the Phase 3 endpoints received from both Regulatory Agencies. In the EU, the Company received guidance that lung density by computed tomography (CT) scan with a relaxed p value (p<0.1) may be sufficient for full regulatory approval. In the U.S., following additional FDA interactions in the second half of 2023, the Company has aligned on St George's Respiratory questionnaire Total score as the primary endpoint, with a functional assessment as a key secondary endpoint, which, if successful, is expected to support submissions for full regulatory approval in the U.S. Inclusion of patients with earlier and later stage lung disease progression in the planned registrational study could increase the addressable patient population for alvelestat. Based on the guidance from the FDA and the EMA, the Company is designing a single, global, Phase 3 study evaluating the 240 mg dose of alvelestat versus placebo in approximately 220 patients with AATD-LD with two independent primary endpoints to support applications for full marketing approvals in both the U.S. and EU.

The Company continues to evaluate non-dilutive financing options for the development and potential commercialization of alvelestat in AATD-LD while continuing to progress the program to maintain the planned Phase 3 timelines.

Phase 1b/2 Clinical Trial in Bronchiolitis Obliterans Syndrome ("BOS")

BOS is a rare progressive, fibrosing disease of the lungs affecting approximately 6% of the estimated 12,000 stem cell transplants a year in the U.S., often as part of graft versus host disease. For lung transplants, approximately 50% of the patients develop BOS by 5 years, which is the leading cause of retransplant and mortality. There are an estimated 10,000 people living with lung transplant and BOS in the U.S. and Europe. BOS is characterized by neutrophil infiltration in the lung, excess neutrophil elastase and inflammation. The pathology of BOS in stem cell transplant and lung transplant is overlapping.

As BOS is driven by elevated neutrophils in the lung and excess NE activity, leading to lung damage through elastin breakdown in the tissue and progressive fibrosis, and ultimately respiratory failure we believe our approach using alvelestat to inhibit NE has significant advantages. By inhibiting NE, we believe alvelestat will reduce the accelerating effects of NE-driven inflammation on BOS leading to increased success rate of SCT and lung transplant. The investigator-led clinical program is designed to generate data on clinical endpoints that would potentially support registration and reimbursement in SCT.

An investigator-sponsored open-label Phase 1b/2 study in Bronchiolitis Obliterans Syndrome (BOS) following allogeneic stem cell transplant is being conducted. The study uses within patient dose escalation from 60 mg BID up to 240 mg BID, over the initial 8 weeks of study, with treatment continued for up to 6 months. Interim results from 7 patients enrolled in the Phase 1b study were reported in December 2021 showing stabilization or improvement in lung function measured by Forced Expiratory Volume in 1 second, (FEV₁) in 6 of 7 patients, and supportive biomarker responses. Evaluation of the clinical and safety data from 10 patients in the Phase 1b supported the dose to be progressed and expansion into the Phase 2 portion of the study which was initiated in the second half of 2022. No safety signals have been detected in this study.

Etigilimab (MPH-313) for the Treatment of Advanced Solid Tumors

Overview

Etigilimab is an antibody against TIGIT (T-cell immunoreceptor with Ig and ITIM domains). TIGIT is a next generation checkpoint receptor shown to block T-cell activation and the body's natural anti-cancer immune response. Etigilimab is an IgG1 monoclonal antibody which binds to the human TIGIT receptor on immune cells with a goal of improving the activation and effectiveness of T-cell and NK cell anti-tumor activity.

We acquired etigilimab in the Merger with Mereo BioPharma 5 (formerly OncoMed Pharmaceuticals, Inc.) in 2019.

Clinical Development of Etigilimab

Our oncology product candidate, etigilimab (an anti-TIGIT antibody), has completed a Phase 1a dose escalation clinical trial in 23 patients with advanced solid tumors and has been evaluated in a Phase 1b study in combination with nivolumab in select tumor types.

In 2023, we completed the Phase 1b portion of an open label Phase 1b/2 basket study (the ACTIVATE study) evaluating etigilimab in combination with nivolumab in three rare tumors, two specific subtypes of soft-tissue sarcomas, uveal melanoma and testicular germ cell cancer, three gynecological carcinomas, cervical, endometrial and ovarian carcinomas and any solid tumor with high mutation burden, all in the recurrent/metastatic setting.

The Phase 1b portion of the ACTIVATE study enrolled 76 patients in total. Data from this study were presented at several major medical conferences (ASCO, 2022; ESMO, 2023). The trial evaluated objective response rate as a primary endpoint and safety, duration of response, pharmacokinetics, anti-drug antibodies, progression-free disease and other endpoints as secondary endpoints. Objective responses were reported for patients with gynecological cancers, rare tumors, and soft-tissue sarcoma with 7 patients remaining on study for at least 335 days. The combination of etigilimab and nivolumab was generally well tolerated with a safety profile qualitatively similar to that of nivolumab alone. The main drug-related safety findings included rash, pruritis, fatigue and headache and the number of Grade 3 events was seven. No Grade 4 or Grade 5 events were reported. Additionally, we have found several intratumoral biomarkers (PVR, TIGIT, and CD226+/CD8 T cells) that, with further testing, might be predictive of response to treatment. At this time, the Company has no plans to conduct and directly fund further clinical studies of etigilimab.

In April 2021, the Company entered into partnership with Cancer Focus Fund for a Phase 1b/2 study of etigilimab in Clear Cell Ovarian Cancer to be conducted at The University of Texas MD Anderson Cancer Center. The Phase 1b/2 study is being financed by Cancer Focus Fund. Clear cell ovarian cancer is a rare cancer that accounts for approximately 5 to 10% of all ovarian carcinomas in North America. Enrollment is continuing in this investigator-led Phase 1b/2 study of etigilimab plus nivolumab (the EON study) and based on encouraging data from the first 10 patients enrolled, the study has been expanded to enroll an additional 10 patients in the Phase 2 portion of the study.

Our Non-Core Partnered Programs

Following completion of successful Phase 1b or Phase 2 studies the products below are programs which we have successfully partnered.

Navicixizumab (OMP-305B83) for Treatment of Ovarian Cancer

Navicixizumab ("Navi") is a bispecific antibody that inhibits delta-like ligand 4 (DLL4) and vascular endothelial growth factor (VEGF).

We acquired Navi in the Merger. In January 2020, we out-licensed Navi to Feng Biosciences (formerly OncXerna). 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."

Leflutrozone (BGS-649)

Leflutrozone is an oral inhibitor of aromatase. Excess aromatase in fat tissue reduces testosterone, LH and FSH, leading to HH. In Phase 2 trials, leflutrozone normalized testosterone, increased LH and FSH, improved total sperm count, and was reported to be well-tolerated.

In December 2023, we entered into an exclusive global license agreement with ReproNovo for the development and commercialization of leflutrozone, a non-steroidal aromatase inhibitor. See "—Material Agreements—Licensing Agreement for Leflutrozone". Under the terms of the License Agreement, ReproNovo, a reproductive medicine company, is responsible for all future development and commercialization of leflutrozone. Mereo received an upfront payment and will be eligible to receive up to \$64.3

million in future clinical, regulatory and commercial milestones as well as tiered mid-single digit royalties on global annual net sales of leflutrolole.

Our Non-Core Programs Available for Partnering

Following completion of a successful Phase 2 study, we intend to out-license or sell the following program.

Acumapimod (BCT-197) for the Treatment of AECOPD

Acumapimod is a p38 MAP kinase inhibitor therapy for treatment during severe acute exacerbations of COPD (AECOPD). In a Phase 2 trial, acumapimod given over 5 days in patients hospitalized with AECOPD demonstrated a statistically significant reduction in re-hospitalization for treatment failure and recurrent exacerbations. Acumapimod was reported to be safe and well tolerated. Following meetings with FDA and EMA a global Phase 3 registrational program has been designed.

We intend to out-license or sell acumapimod to third parties for the further development of acumapimod recognizing the need for greater resources to take this product candidate to market.

Material Agreements

Licensing Agreement with Ultragenyx for setrusumab

On December 17, 2020, we announced that we entered into a license and collaboration agreement with Ultragenyx, for setrusumab for OI. Under the terms of the agreement, Ultragenyx will lead future global development of setrusumab in both pediatric and adult patients. We granted Ultragenyx an exclusive license to develop and commercialize setrusumab in the U.S. and rest of the world, excluding Europe, where we retain commercial rights. Each party will be responsible for post-marketing commitments in their respective territories. Under the terms of the agreement, Ultragenyx made an upfront payment of \$50 million to Mereo and a \$9.0 million payment during the year ended December 31, 2023 upon achievement of a clinical milestone. Ultragenyx will pay up to \$254 million in additional development, regulatory and commercial milestones and tiered double digit percentage royalties to us on net sales outside of Europe and we will pay a fixed double digit percentage royalty to Ultragenyx on net sales in Europe. Under the terms of our 2015 agreement with Novartis, we will pay Novartis a percentage of proceeds, subject to certain deductions, and we will receive a substantial majority of the payments from Ultragenyx.

Licensing Agreement with AstraZeneca

In October 2017, we announced that we 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 (or ADS equivalent) 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 agreed not to assert any AstraZeneca intellectual property rights that were included in the scope of the License Agreement against us.

Licensing Agreement for Navicixizumab

On January 13, 2020, we entered into a global license agreement with Feng Biosciences (formerly OncXerna) for the development and commercialization of navicixizumab, an anti-DLL4/VEGF bispecific antibody, which, at the time, was being evaluated in a Phase 1b study in combination with paclitaxel in patients with advanced heavily pretreated ovarian cancer. Navicixizumab 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.

Under the terms of the license agreement, Feng Biosciences received an exclusive worldwide license to develop and commercialize Navi. We received an upfront payment of \$4.0 million and in February 2022 we received an additional payment of \$2.0 million, following satisfaction of a milestone. Feng Biosciences 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 Feng Biosciences, 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.”

In February 2022, we received a milestone payment of \$2.0 million (£1.5 million) under the Navi License Agreement with Feng Biosciences. An associated payment was made to the former shareholders of Mereo BioPharma 5, Inc. under the CVR Agreement of a total of \$0.9 million (£0.7 million), after deductions of costs, charges and expenditures.

In the fourth quarter of 2023, Feng Biosciences completed a restructuring, recapitalization and closed on a refinancing. Feng Biosciences is a clinical stage therapeutics company advancing precision medicine for people with cancer. The company will continue to utilize its Xerna™ platform to progress navicixizumab.

Licensing Agreement for Leflutrozone

In December 2023, we entered into an exclusive global license agreement with ReproNovo for the development and commercialization of leflutrozone, a non-steroidal aromatase inhibitor. Under the terms of the License Agreement, ReproNovo, a reproductive medicine company, is responsible for all future development and commercialization of leflutrozone. Mereo received an upfront payment and will be eligible to receive up to \$64.3 million in future clinical, regulatory and commercial milestones as well as tiered mid-single digit royalties on global annual net sales of leflutrozone.

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 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 Mereo “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 Mereo BioPharma 5 (formerly OncoMed)'s etigilimab and navicixizumab product candidates, though the milestone relevant to etigilimab can no longer be achieved and no payments will become due or payable to CVR holders in relation to etigilimab.

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 relating to NAVI. If a milestone relating to NAVI occurs at any time prior to the fifth anniversary of the closing of the Merger, being April 23, 2024, and on each such occurrence, then, thirty days following the achievement thereof,

we are obligated to notify the rights agent and pay the amounts owed pursuant to the NAVI Agreement (as defined in the CVR Agreement).

The NAVI Milestones

The receipt of the upfront milestone payment of \$4.0 million by us under the Navi License Agreement with Feng Biosciences (formerly OncXerna) in January 2020 resulted in a payment to CVR holders of approximately 1.2 cents per CVR, a total of approximately \$0.5 million, after deductions of costs, charges and expenditures.

The receipt of the milestone payment of \$2.0 million by us under the Navi License Agreement with Feng Biosciences (formerly OncXerna) in February 2022 resulted in a payment to CVR holders of approximately 2.3 cents per CVR, a total of approximately \$0.9 million, after deductions of costs, charges and expenditures.

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 leflutroazole (the “Compounds”), respectively, and certain related assets (together with the Compounds, the “Novartis Assets”).

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. 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, of which \$0.8 million was paid in 2023, 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.

Novartis Loan Note

On February 10, 2020, we entered into a £3.8 million convertible loan note instrument with Novartis pursuant to which we issued 3,841,479 unsecured convertible loan notes (the “Novartis Loan Note”) with a maturity date of February 10, 2023, and warrants to purchase 1,449,614 ordinary shares, exercisable until February 2025.

On February 10, 2023, we amended the Novartis Loan Note, extending the maturity date to February 10, 2025. Pursuant to the amendment and a new warrant instrument, interest accrued to the amendment date was paid in cash, and warrants to purchase 2,000,000 ordinary shares at an exercise price of £0.150 per ordinary share were issued and are exercisable until February 10, 2028.

Cooperation Agreement with Rubric Capital Management LP

On October 28, 2022, Mereo entered into a cooperation agreement (the “Cooperation Agreement”) with Rubric Capital Management LP, the Company’s largest shareholder. Pursuant to the Cooperation Agreement, four new directors, Dr. Annalisa Jenkins, Dr. Daniel Shames, Mr. Marc Yoskowitz and Mr. Justin Roberts, were subsequently appointed to the Company’s Board of Directors on November 10, 2022. Concurrent with these appointments taking effect, directors Dr. Peter Fellner, Dr. Brian Schwartz, Dr. Abdul Mullick and Ms. Anne Hyland resigned from the Board.

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 alvelestat, etigilimab and acumapimod and we intend to enter into additional manufacturing agreements as necessary. Following our license of alvelestat, we acquired certain clinical trial materials and we subsequently outsourced production of further clinical supplies to our own manufacturing suppliers. We also 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, alvelestat and etigilimab, if approved for commercial sale. 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 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. In December 2020, we entered into a license and collaboration agreement with Ultragenyx for setrusumab. For our other current and future product candidates we intend to take strategic decisions on whether to further develop them, potentially through to approval, directly commercializing globally or in certain territories, or to seek a partner for further development, co-development and/or commercialization. For product candidates we intend to commercialize or co-commercialize, we must either establish a sales and marketing organization with technical expertise and supporting distribution capabilities in major markets or potentially outsource aspects of these functions to third parties or partners.

Competition

We compete directly with other biopharmaceutical and pharmaceutical companies that focus on the treatment of OI, AATD, solid tumors and AECOPD. 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, etigilimab and acumapimod that we or our partners 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 and UCB’s anti-sclerostin antibody, romosozumab (Evenity), which was approved for osteoporosis in the U.S. in April 2019 and in December 2019 in Europe. In addition, Jiangsu Hengrui has commenced Phase 1 development of an anti-sclerostin antibody for osteoporosis in China, and Transcenta Holding has licensed the Chinese rights to the anti-sclerostin antibody blosozumab from Eli Lilly and Company (“Lilly”) and plans to develop it for osteoporosis. Baylor College of Medicine has conducted a Phase 1 open label trial of fresolimumab, a TGF-B inhibitor, in adult OI patients, and Sanofi is conducting a Phase 1 trial of SAR439459, a related TGF-B inhibitor, in adult OI patients. Amgen has also terminated a Phase 3 study and an open label extension study of denosumab (Prolia) an anti-resorptive agent in pediatric patients with OI.

We consider alvelestat’s current closest potential competitors for the treatment of severe AATD to be alpha-1- proteinase inhibitors that are administered intravenously in AAT augmentation therapy. Currently, there are four inhibitors on the market in the U.S. 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 developing an inhaled version of augmentation therapy which is in Phase 3 and has a recombinant alpha-1 antitrypsin in early development. InhibRx, Inc. (“InhibRx”) (pending acquisition by Sanofi) has initiated a Phase 2 registrational trial of INBRX-101, a recombinant human alpha-1 antitrypsin Fc fusion protein (rhAAT-Fc) for replacement therapy. Apic Bio, Inc. (“Apic Bio”) is in the early stages of developing a dual function vector (df-AAV) gene-therapy approach for AATD silencing the mutant Z-AAT protein and augmenting wildtype M-AAT production. Wave Life Sciences has initiated a Phase 1 study of RNA base-editing oligonucleotide (WVE-0006) to

restore wild-type protein in lung and liver disease, a program that has been recently partnered with GSK. Intellia Therapeutics has initiated a Phase 1 study with a CRISPR/Cas9 -based insertion of normal SERPINA1 gene, targeting lung disease (NTLA-3001). Peak Bio acquired an oral NE inhibitor, PHP-303 from Ph Pharma in March 2022 and recently announced a merger with Akari Pharmaceuticals. Vertex Pharmaceuticals Inc. (“Vertex”) has two small molecule corrector programs for AATD in Phase 1 trials following Phase 2 trials with two other molecules with the same mechanism of action that were discontinued due to toxicity and efficacy. Biomarin Pharmaceutical Inc. is in early stages of development of a small molecule corrector (BMN 349). There are no therapies with regulatory approval for Bronchiolitis Obliterans Syndrome (“BOS”) following SCT or lung transplant. We consider alvelestat’s closest potential competitors to be the Janus Kinase (JAK1) inhibitor, itacitinib, and JAK2 inhibitor, ruxolitinib, (Incyte Corporation) in Phase 1/Phase2 studies in lung transplant-associated and SCT-associated BOS, respectively; AI Therapeutics inhaled formulation of sirolimus (LAM-001) in Phase 1 for BOS in lung transplant; Isopogen allogeneic bone marrow derived Mesenchymal Stem Cells for Chronic Lung Allograft Dysfunction (CLAD) in Phase 1 (NCT02709343); and liposomal inhaled cyclosporin-A (Zambon) in Phase 2 in BOS following SCT and in Phase 3 global pivotal trials in BOS associated with lung transplant.

We consider etigilimab’s current closest potential competitors to include other anti-TIGIT agents being developed by companies including Roche, Merck, iTeos and GSK, Beigene, Arcus/Gilead and Compugen amongst others. In addition, there are other combinations of existing cancer therapies available commercially for example, Yervoy and Opdivo and Opdivo or Keytruda in combination with chemotherapeutic targeted agents. There are a number of bispecific antibodies with an anti-TIGIT arm in development including a Phase 3 program in NSCLC being developed by AstraZeneca. There are also a number of other agents in development to other immuno-oncology targets that could compete with an anti-TIGIT approach, for example anti-LAG3.

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 the treatment of COPD as well as a number of product candidates in development. We consider acumapimod’s current closest potential competitor for the treatment of AECOPD to be Verona Pharma’s (“Verona”) nebulized and inhaled ensifentrine (RPL554), a PDE3 / PDE4 dual inhibitor that is currently being developed as a bronchodilator and anti-inflammatory agent for COPD, Asthma and Cystic Fibrosis patients. In 2022, Verona announced positive results (FEV1 and AECOPD exacerbation frequency) from two Phase 3 trials (ENHANCE-1 and ENHANCE-2) in COPD. The FDA has assigned a Prescription Drug User Fee Act (“PDUFA”) target action date for ensifentrine of June 26, 2024. Pulmatrix, Inc. (“Pulmatrix”) has PUR1800, a narrow-spectrum kinase inhibitor (NSKI) that completed a Phase 1b trial in COPD. In addition to Pulmatrix, there are several compounds, which directly or indirectly target the p38 MAP Kinase pathway in clinical development by Poolbeg Pharma Plc (“Poolbeg”), Fulcrum Therapeutics Inc (“Fulcrum”), GEn1E Lifesciences Inc (“GEn1E Lifesciences”), CervoMed Inc (“CervoMed”), Kinarus AG (“Kinarus”), Neurokine Therapeutics (“Neurokine”), and Inovio Pharmaceuticals Inc (“Inovio”), among others, for therapeutic indications outside the COPD setting.

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, etigilimab and acumapimod, 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, etigilimab, or acumapimod achieve marketing approval, they may be priced at a significant premium over competing product candidates if any have been approved by then, potentially reducing our market opportunity. For more information, see “Item 1A. Risk Factors—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 or our partners do.”

Intellectual Property

We have acquired or exclusively licensed our intellectual property portfolio from Mereo BioPharma 5 (formerly OncoMed), Novartis 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 U.S. and in jurisdictions outside of the U.S. 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 our wholly owned subsidiaries. As of December 31, 2023, our patent portfolio comprises approximately 607 issued patents and approximately 92 pending patent applications on a global basis.

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 U.S. 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 U.S. 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 “Item 1A. Risk Factors—Risks Related to Intellectual Property.”

Setrusumab (BPS-804/UX143)

As of December 31, 2023, we have 127 patents globally (including four issued U.S. patents) and 24 patent applications globally (including a pending U.S. patent application) relating to setrusumab and its use for the treatment of OI. A first patent family includes three issued U.S. patents and 86 corresponding issued foreign patents that relate to the setrusumab antibody, nucleic acids encoding setrusumab, processes for producing setrusumab, and setrusumab’s use as a medicament. Patents emanating from this first patent family expire in 2028 (not accounting for any available patent term extension). We also have two additional patent families, including an issued U.S. patent and 37 issued foreign patents that relate to methods of using anti-sclerostin antibodies, including setrusumab, for the treatment of OI. Patents emanating from these additional patent families expire in 2037 (not accounting for any available patent term extension). Beyond these patents and patent applications, we jointly own with Ultragenyx one additional patent family relating to dosing regimens for the use of anti-sclerostin antibodies, including setrusumab, in the treatment of OI; we expect any patents emanating from this patent family to expire in 2042 (not accounting for any available patent term extension). In December 2020, we entered into a license and collaboration agreement with Ultragenyx for setrusumab for OI, under which Ultragenyx have exclusive rights under all setrusumab patent families outside of Europe. See “—Licensing Agreement with Ultragenyx for setrusumab.”

On February 3, 2023, Ultragenyx, Mereo BioPharma 3 Limited, UCB Pharma SA (“UCB”) and Amgen Inc. (“Amgen”) entered into a non-exclusive worldwide, royalty-free license to research, develop, and commercialize setrusumab in osteogenesis imperfecta under certain UCB/Amgen-owned patent rights related to anti-sclerostin compounds and their uses.

Alvelestat (MPH-966)

As of December 31, 2023, our patent portfolio relating to our product candidate alvelestat consisted of three issued U.S. patents, no pending U.S. patent applications, 36 issued or allowed foreign patents and two pending foreign patent applications. These patents have all been licensed under our agreement with AstraZeneca. See “—Material Agreements—Licensing Agreement with AstraZeneca.” 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 one pending international patent application filed under the PCT, three pending U.S. patent applications, two U.S. provisional patent applications, two granted foreign patents and sixteen pending foreign patent applications which have been filed subsequent to the license agreement with AstraZeneca. These patent applications, if issued, include claims directed to dosing regimens of alvelestat, methods of treatment using alvelestat, and dosage forms of alvelestat with expected expiry dates between 2040 and 2044.

Etigilimab (MPH-313)

As of December 31, 2023, our patent portfolio relating to our product candidate etigilimab consisted of four granted U.S. patents and two pending U.S. patent applications, as well as corresponding patent applications in major foreign jurisdictions.

The patent portfolio relating to our product candidate etigilimab contains one core patent family that covers the product per se as well as medical uses thereof. This patent family currently consists of two granted U.S. patents, sixty-one granted or allowed foreign patents and twelve pending foreign patent applications. 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 two granted U.S. patents, one U.S. pending patent application, and 8 granted or allowed foreign patents and 5 pending foreign patent applications. Any patents that issue from this family are generally expected to expire in 2037.

The portfolio also includes two PCT patent applications. Any patents that issue from these families are generally expected to expire in 2042.

Navicixizumab (OMP-305B83)

As of December 31, 2023, our patent portfolio relating to Navi consisted of 21 issued or allowed U.S. patents and two 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. Navi was licensed by the Group to Feng Biosciences (formerly OncXerna Inc.) in January 2020 pursuant to the terms of a global licensing agreement. See “—Material Agreements—Licensing Agreement for Navicixizumab.”

Acumapimod (BCT-197)

As of December 31, 2023, our patent portfolio relating to our product acumapimod consisted of 13 issued or allowed U.S. patents, 1 pending U.S. patent applications, 236 issued or allowed foreign patents and 19 pending foreign applications. 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 2039.

Leflurozole (BGS-649)

As of December 31, 2023, our patent portfolio relating to our product leflutrozone consisted of four issued U.S. patents and 92 issued foreign patents. These issued patents and patent applications, if issued, include claims directed to leflutrozone formulations and the use of leflutrozone in treating hypogonadism according to a specific dosing regimen, with expected expiry dates between 2032 and 2037. Leflutrozone was licensed by the Group to ReproNovo in December 2023 pursuant to the terms of global licensing agreement. See "—Material Agreements—Licensing Agreement for Leflutrozone".

Government Regulation

Among others, the FDA, U.S. Department of Health and Human Services Office of Inspector General, CMS and comparable regulatory authorities in state, local and foreign 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 U.S., the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act ("FDCA") and its implementing regulations, and biological product candidates ("biologics"), under both the FDCA and the Public Health Service Act ("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 U.S. generally involves the following:

- completion of pre-clinical laboratory tests, animal studies and formulation studies, certain of which must be conducted in compliance with the FDA's Good Laboratory Practice ("GLP") regulations and other applicable 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 independent Institutional Review Board ("IRB") or ethics committee at each clinical site before each trial may be initiated;
- Good Clinical Practice ("GCP") requirements to evaluate the safety, purity, potency and/or efficacy of the product candidate for its intended use;
- submission to the FDA of an NDA or BLA after completion of all pivotal trials;
- 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 current Good Manufacturing Practice ("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; and
- payment of user fees, if applicable, and FDA review and approval of the NDA or BLA;

Pre-clinical Studies

Once a product candidate is identified for development, it enters the preclinical testing stage. Pre-clinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess potential safety and efficacy. 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. An IND is a request for authorization from the FDA to administer an investigational drug product to humans. An IND will also include a protocol detailing, among other things, the objectives of the clinical trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if the trial includes an efficacy evaluation. 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 holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns about on-going or proposed clinical trials or non-compliance with specific FDA requirements, and the trials may not begin or continue until the FDA notifies the sponsor that the hold has been lifted.

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 among other things, 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. While the IND is active, progress reports summarizing the results of the clinical trials and nonclinical studies performed since the last progress report, among other information, must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to the same or similar drugs, findings from animal or in vitro testing suggesting a significant risk to humans, and any clinically important increased incidence of a serious suspected adverse reaction compared to that listed in the protocol or investigator brochure.

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. The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients 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 drug has been associated with unexpected serious harm to patients. In addition, some clinical trials are overseen by an independent group of qualified experts organized by the sponsor, known as a data safety monitoring board or committee. Depending on its charter, this group may determine whether a trial may move forward at designated check points based on access to certain data from the trial. Information about certain clinical trials must also 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 candidate 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 candidate 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 candidate 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.

Post-approval trials, sometimes referred to as Phase 4 studies, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of approval of a BLA or NDA.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in commercial quantities in accordance with cGMPs. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. In addition, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

Rare Pediatric Disease Priority Review Voucher Program

In 2012, Congress authorized the FDA to award priority review vouchers to sponsors of certain rare pediatric disease product applications. This program is designed to encourage development of new drug and biological products for prevention and treatment of certain rare pediatric diseases. Specifically, under this program, a sponsor who receives an approval for a drug or biologic for 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.

The sponsor of a rare pediatric disease drug product receiving a priority review voucher may transfer (including by sale) the voucher to another sponsor. The voucher may be further transferred any number of times before the voucher is used, as long as the sponsor making the transfer has not yet submitted the application. The FDA may also revoke any priority review voucher if the rare pediatric disease drug for which the voucher was awarded is not marketed in the U.S. within one year following the date of approval.

For purposes of this program, a “rare pediatric disease” is a (a) serious or life-threatening disease in which the serious or life-threatening manifestations primarily affect individuals aged from birth to 18 years, including age groups often called neonates, infants, children, and adolescents; and (b) rare diseases or conditions within the meaning of the Orphan Drug Act. Congress has only authorized the Rare Pediatric Disease Priority Review Voucher program until September 30, 2024. Consequently, sponsors of marketing applications approved after that date will not receive the voucher unless Congress reauthorizes the Rare Pediatric Disease Priority Review Voucher program before that time. However, even if the program is not reauthorized, if a drug candidate receives Rare Pediatric Disease Designation before October 1, 2024, the sponsor of the marketing application for such drug will be eligible to receive a voucher if the application for the designated drug is approved by the FDA before October 1, 2026.

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 U.S., or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the U.S. 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. 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 disease or condition 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 disease or condition for seven years, except in certain limited circumstances. If a product designated as an orphan product ultimately receives marketing approval for disease or condition 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 disease or condition 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 disease or condition as long as the product candidates contain different active ingredients. Moreover, competitors may receive approval of different product candidates for the disease or condition 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.

In addition, under the Pediatric Research Equity Act of 2003, as amended and reauthorized (“PREA”), 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, unless the sponsor has received a deferral or waiver. The required assessments must evaluate the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The sponsor or FDA may request a deferral of pediatric clinical trials for some or all of the pediatric subpopulations for several reasons, including a finding that the drug is ready for approval for use in adults before pediatric clinical trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric clinical trials begin. The FDA must send a non-compliance letter to any sponsor that fails to submit the required assessment, keep a deferral current or fails to submit a request for approval of a pediatric formulation.

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. 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. 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.

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 indicates that the review cycle of the application is complete, and that the application will not be approved in its present form. A complete response letter generally details specific conditions that must be met in order to secure 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. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS. The FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. 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. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer's communications on the subject of off-label use of their products. 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.

Special FDA Expedited Review and Approval

The FDA has various programs, such as 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.

To be eligible for a Fast-track designation, the FDA must determine, based on the request of a sponsor, that a product candidate is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need for such disease or condition. 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-designated 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, 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. The designation includes all of the Fast Track program features, as well as more intensive FDA interaction and guidance beginning as early as Phase 1 and an organizational commitment to expedite the development and review of the product candidate, including involvement of senior managers.

Product candidates studied for their safety and effectiveness in treating serious or life-threatening illnesses and that have the potential to provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval upon a determination 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 generally require a sponsor of a product receiving accelerated approval to perform adequate and well-controlled confirmatory trials to verify and describe the predicted clinical benefit, and may require that such confirmatory trials be underway prior to granting any accelerated approval. Products receiving accelerated approval may be subject to expedited withdrawal procedures if the sponsor fails to conduct the required confirmatory trials in a timely manner or if such trials fail to verify the predicted clinical benefit. In addition, the FDA currently requires as a condition of accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

Once an NDA or BLA is submitted for a product intended to treat a serious condition, the FDA may assign a priority review designation to the application if the FDA determines that the product candidate, if approved, would provide a significant improvement in safety or effectiveness. The FDA will attempt to direct additional resources to the evaluation of an NDA or BLA designated for priority review in an effort to facilitate the review. The FDA endeavors to review NDAs for new molecular entities and original BLAs with priority review designations within six months of the filing date as compared to ten months under its current review goals.

Fast track designation, breakthrough therapy designation, priority review, and accelerated approval do not change the standards for approval but may expedite the development or approval process. 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.

Drug and Biological Product Exclusivities

Market exclusivity provisions authorized under the FDCA can delay the submission or the approval of some marketing applications. For example, the FDCA provides a five-year period of non-patent data exclusivity within the U.S. to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion, excluding those appended portions of the molecule that cause the drug to be an ester, salt, including a salt with hydrogen or coordination bonds, or other noncovalent derivative, such as a complex, chelate, or clathrate, responsible for the action of the drug substance. During the exclusivity period, the FDA may not approve or even accept for review an abbreviated new drug application (“ANDA”) or an NDA submitted under Section 505(b)(2) (“505(b)(2) NDA”), submitted by another company for another drug based on the same active moiety, regardless of whether the drug is intended for the same indication as the original innovative drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder.

The FDCA alternatively provides three years of non-patent exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of approval for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs or 505(b) (2) NDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to any preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

In addition, the Biologics Price Competition and Innovation Act of 2009, or BPCIA, created an abbreviated approval pathway for biological products that are highly similar, or “biosimilar,” to or interchangeable with an FDA-approved reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars. Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, is generally shown through analytical studies, animal studies, and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. A product shown to be biosimilar or interchangeable with an FDA-approved reference biological product may rely in part on the FDA’s previous determination of safety and effectiveness for the reference product for approval, which can potentially reduce the cost and time required to obtain approval to market the 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 that applicant’s own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product.

Pediatric exclusivity is another type of regulatory exclusivity available in the U.S. Pediatric exclusivity provides for an additional six months of exclusivity attached to another existing patent term or period of regulatory exclusivity if a sponsor conducts clinical trials in children in response to a “written request” from the FDA. The issuance of a written request does not require the sponsor to undertake the described clinical trials.

Foreign Government Regulation

Our product candidates are subject to similar laws and regulations imposed by jurisdictions outside of the U.S., and, in particular, the EU, 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.

Non-clinical Studies and Clinical Trials

Similarly to the U.S., the various phases of non-clinical and clinical research in the EU, are subject to significant regulatory controls.

Non-clinical studies are performed to demonstrate the health or environmental safety of new chemical or biological substances. Non-clinical studies (pharmaco-toxicological) must be conducted in compliance with the principles of good laboratory practice, or GLP, as set forth in EU Directive 2004/10/EC (unless otherwise justified for certain particular medicinal products - e.g., radio-pharmaceutical precursors for radio-labelling purposes). In particular, non-clinical studies, both in vitro and in vivo, must be planned, performed, monitored, recorded, reported and archived in accordance with the GLP principles, which define a set of rules and criteria for a quality system for the organizational process and the conditions for non-clinical studies. These GLP standards reflect the Organization for Economic Co-operation and Development requirements.

Clinical trials of medicinal products in the EU must be conducted in accordance with EU and national regulations and the International Council for on Harmonization of Technical Requirements for Pharmaceuticals for Human Use (“ICH”) guidelines on Good Clinical Practices (“GCP”) as well as the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. If the sponsor of the clinical trial is not established within the EU, it must appoint an EU entity to act as its

legal representative. The sponsor must take out a clinical trial insurance policy, and in most EU member states, the sponsor is liable to provide ‘no fault’ compensation to any study subject injured in the clinical trial.

The regulatory landscape related to clinical trials in the EU has been subject to recent changes. The EU Clinical Trials Regulation (“CTR”) which was adopted in April 2014 and repeals the EU Clinical Trials Directive, became applicable on January 31, 2022. Unlike directives, the CTR is directly applicable in all EU member states without the need for member states to further implement it into national law. The CTR notably harmonizes the assessment and supervision processes for clinical trials throughout the EU via a Clinical Trials Information System, which contains a centralized EU portal and database.

While the EU Clinical Trials Directive required a separate clinical trial application (“CTA”) to be submitted in each member state in which the clinical trial takes place, to both the competent national health authority and an independent ethics committee, much like the FDA and IRB respectively, the CTR introduces a centralized process and only requires the submission of a single application for multi-center trials. The CTR allows sponsors to make a single submission to both the competent authority and an ethics committee in each member state, leading to a single decision per member state. The CTA must include, among other things, a copy of the trial protocol and an investigational medicinal product dossier containing information about the manufacture and quality of the medicinal product under investigation. The assessment procedure of the CTA has been harmonized as well, including a joint assessment by all member states concerned, and a separate assessment by each member state with respect to specific requirements related to its own territory, including ethics rules. Each member state’s decision is communicated to the sponsor via the centralized EU portal. Once the CTA is approved, the clinical study may proceed.

The CTR foresees a three-year transition period. The extent to which ongoing and new clinical trials will be governed by the CTR varies. Clinical trials for which an application was submitted (i) prior to January 31, 2022 under the EU Clinical Trials Directive, or (ii) between January 31, 2022 and January 31, 2023 and for which the sponsor has opted for the application of the EU Clinical Trials Directive remain governed by said Directive until January 31, 2025. After this date, all clinical trials (including those which are ongoing) will become subject to the provisions of the CTR.

Medicines used in clinical trials must be manufactured in accordance with Good Manufacturing Practice, or GMP. Other national and EU-wide regulatory requirements may also apply.

Marketing Authorization

In order to market our future product candidates in the EU, and many other foreign jurisdictions, we must obtain separate regulatory approvals. More concretely, in the EU, medicinal product candidates can only be commercialized after obtaining a Marketing Authorization (“MA”). To obtain regulatory approval of a product candidate under EU regulatory systems, we must submit a MA application (“MAA”). The process for doing this depends, among other things, on the nature of the medicinal product. There are two types of MAs:

- “Centralized MAs” are issued by the European Commission through the centralized procedure, based on the opinion of the Committee for Medicinal Products for Human Use (“CHMP”) of the EMA and are valid throughout the entire territory of the EU. The centralized procedure is mandatory for certain types of medicinal products, such as (i) medicinal products derived from biotechnological processes, (ii) designated orphan medicinal product products, (iii) advanced therapy medicinal products (“ATMPs”) (such as gene therapy, somatic cell therapy and tissue engineered products) and (iv) medicinal products containing a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, neurodegenerative disorders, diabetes, auto-immune and viral diseases. The centralized procedure is optional for products containing a new active substance not yet authorized in the EU, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU; and
- “National MAs” are issued by the competent authorities of the EU member states, only cover their respective territory, and 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 an EU member state, 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 decentralized procedure an identical dossier is submitted to the competent authorities of each of the member states in which the MA is sought, one of which is selected by the applicant as the reference member state.

Under the centralized procedure the maximum timeframe for the evaluation of an MAA by the EMA is 210 days, excluding clock stops. In exceptional cases, the CHMP might perform an accelerated review of a MAA in no more than 150 days (not including clock stops). Innovative products that target an unmet medical need and are expected to be of major public health interest may be eligible for a number of expedited development and review programs, such as the PRIME scheme, which provides incentives similar to the breakthrough therapy designation in the U.S. In March 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 not guaranteed. An initial meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies. The benefits of a PRIME designation includes the appointment of a dedicated contact and rapporteur from the CHMP before submission of an MAA, early and proactive dialogue and scientific advice at key development milestones, and the ability to request for accelerated review earlier in the application process, however this is at the discretion of the CHMP. Setrusumab was granted PRIME designation in November 2017.

Moreover, in the EU, a "conditional" MA may be granted in cases where all the required safety and efficacy data are not yet available. The CMA is subject to conditions to be fulfilled for generating the missing data or ensuring increased safety measures. It is valid for one year and has to be renewed annually until fulfillment of all the conditions. Once the pending studies are provided, it can become a "standard" MA. However, if the conditions are not fulfilled within the timeframe (timelines may be re-negotiated with CHMP approval if appropriate) set by the EMA, the MA ceases to be renewed. The EMA may also grant a MA in absence of comprehensive data under exceptional circumstances. Unlike a conditional MA, where MA is granted in the likelihood that the sponsor will provide such data within an agreed timeframe, the EMA can grant authorization under exceptional circumstances when comprehensive data cannot be obtained even after authorization.

Under the above described procedures, before granting the MA, the CHMP or the competent authorities of the EU member states make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy. MAs have an initial duration of five years. After these five years, the authorization may be renewed on the basis of a reevaluation of the risk-benefit balance.

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 MA. In February 2017, setrusumab was accepted into the adaptive pathways program.

Data and marketing exclusivity

In the EU, new product candidates authorized for marketing, or reference product candidates, generally receive eight years of data exclusivity and an additional two years of market exclusivity upon MA. If granted 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 MA 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 overall 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 MA 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. However, there is no guarantee that a product will be considered by the EU's regulatory authorities to be a new chemical or biological entity, and products may not qualify for data exclusivity.

There is a special regime for biosimilars, or biological medicinal products that are similar to a reference medicinal product but that do not meet the definition of a generic medicinal product, for example, because of differences in raw materials or manufacturing processes. For such products, the results of appropriate preclinical or clinical trials must be provided, and guidelines from the EMA detail the type of quantity of supplementary data to be provided for different types of biological product. There are no

such guidelines for complex biological products, such as gene or cell therapy medicinal products, and so it is unlikely that biosimilars of those products will currently be approved in the EU. However, guidance from the EMA states that they will be considered in the future in light of the scientific knowledge and regulatory experience gained at the time.

Orphan Medicinal Products

The criteria for designating an “orphan medicinal product” in the EU are similar in principle to those in the U.S. A medicinal product can be designated as an orphan if its sponsor can establish that: (1) the product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically-debilitating condition, (2) either (a) affecting not more than five in 10,000 persons in the EU when the application is made, or (b) that the product without the benefits derived from the orphan status, would generate sufficient return to justify the necessary investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized for marketing in the EU or, if such method exists, the product will be of significant benefit to those affected by that condition.

Orphan designation must be requested before submitting an MAA. Orphan designation entitles a party to incentives such as reduction of fees or fee waivers, protocol assistance, and access to the centralized procedure. Upon grant of a MA for an orphan medicinal product, applicants are entitled to a 10 year period of market exclusivity for the approved indication. During this market exclusivity period, the competent authorities cannot accept another application for a MA, or grant a MA, or accept an application to extend a MA 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 pediatric investigation plan (“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 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. Additionally, MA may be granted for another similar product for the same indication at any time if (i) the applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior; (ii) the applicant consents to a second orphan medicinal product application; or (iii) the applicant cannot supply enough orphan medicinal product.

Pediatric Development

In the EU MAA for new medicinal product candidates have to include the results of studies conducted in the pediatric population, in compliance with a 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 MA 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 MA 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 (if any is in effect at the time of approval) or, in the case of orphan medicinal products, a two-year extension of orphan market exclusivity.

Post-Approval Requirements

Similar to the U.S., both MA holders and manufacturers of medicinal products are subject to comprehensive regulatory oversight by the EMA, the European Commission and/or the competent regulatory authorities of the member states. The holder of a MA must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance (“QPPV”) who is responsible for the establishment and maintenance of that system, and oversees the safety profiles of medicinal products and any emerging safety concerns. Key obligations include expedited reporting of suspected serious adverse reactions and submission of periodic safety update reports, or PSURs.

All new MAA must include a risk management plan (“RMP”) describing the risk management system that the company will put in place and documenting measures to prevent or minimize the risks associated with the product. The RMP must be updated any time new information on the medicinal product becomes available which has a significant impact on the content of the RMP. The regulatory authorities may also impose specific obligations as a condition of the MA. Such risk-minimization measures or post-authorization obligations may include additional safety monitoring, more frequent submission of PSURs, or the conduct of additional clinical trials or post-authorization safety studies.

The advertising and promotion of medicinal products is also subject to laws concerning promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the EU. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each member state and can differ from one country to another.

The aforementioned EU rules are generally applicable in the European Economic Area, or EEA, which consists of the 27 EU member states plus Norway, Liechtenstein and Iceland.

Failure to comply with EU and member state laws that apply to the conduct of clinical trials, manufacturing approval, MA of medicinal products and marketing of such products, both before and after grant of the MA, manufacturing of pharmaceutical products, statutory health insurance, bribery and anti-corruption or with other applicable regulatory requirements may result in administrative, civil or criminal penalties. These penalties could include delays or refusal to authorize the conduct of clinical trials, or to grant MA, product withdrawals and recalls, product seizures, suspension, withdrawal or variation of the MA, total or partial suspension of production, distribution, manufacturing or clinical trials, operating restrictions, injunctions, suspension of licenses, fines and criminal penalties.

Regulation in the U.K.

Since the end of the Brexit transition period on January 1, 2021, Great Britain (England, Scotland and Wales) ("GB") has not been directly subject to EU laws, however under the terms of the Ireland/Northern Ireland Protocol, EU laws generally apply to Northern Ireland. The EU laws that have been transposed into U.K. law through secondary legislation remain applicable in Great Britain however, new legislation such as the (EU) CTS is not applicable in Great Britain.

Under the Medicines and Medical Devices Act 2021, the Secretary of State or an ‘appropriate authority’ has delegated powers to amend or supplement existing regulations in the area of medicinal products and medical devices. This allows new rules to be introduced in the future by way of secondary legislation, which aims to allow flexibility in addressing regulatory gaps and future changes in the fields of human medicines, clinical trials and medical devices.

Since January 1, 2021, the Medicines and Healthcare products Regulatory Agency (“MHRA”), has been the U.K.’s standalone medicines and medical devices regulator. As a result of the Northern Ireland protocol, different rules apply in Northern Ireland than in England, Wales, and Scotland, together, GB; broadly, Northern Ireland will continue to follow the EU regulatory regime, but its national competent authority will remain the MHRA. On February 27, 2023, the U.K. Government and the European Commission reached a political agreement on the “Windsor Framework” which will revise the Northern Ireland protocol in order to address some of the perceived shortcomings in its operation. Under the changes, Northern Ireland will be reintegrated under the regulatory authority of the MHRA with respect to medicinal products. The Windsor Framework was approved by the EU-U.K. Joint Committee on March 24, 2023, so the U.K. government and the EU will enact legislative measures to bring it into law. On June 9, 2023, the MHRA announced that the medicines aspects of the Windsor Framework will apply from January 1, 2025.

The MHRA has introduced changes to national licensing procedures, including procedures to prioritize access to new medicines that will benefit patients, including a 150-day assessment and a rolling review procedure. All existing EU MAs for centrally authorized products were automatically converted or grandfathered into U.K. MAs, effective in GB (only), free of charge on January 1, 2021, unless the MA holder opted-out. In order to use the centralized procedure to obtain a MA that will be valid throughout the EEA, companies must be established in the EEA. Therefore, since Brexit, companies established in the U.K. can no longer use the EU centralized procedure and instead an EEA entity must hold any centralized MAs. In order to obtain a U.K. MA to commercialize products in the U.K., an applicant must be established in the U.K. and must follow one of the U.K. national authorization procedures or one of the remaining post-Brexit international cooperation procedures to obtain an MA to commercialize products in the U.K. A new international recognition framework has been in place from January 1, 2024, whereby the MHRA will have regard to decisions on the approval of MAs made by the EMA and certain other regulators when determining an application for a new GB MA. There is no pre-MA orphan designation. Instead, the MHRA will review applications for orphan designation in parallel to the corresponding MAA. The criteria are essentially the same, but have been tailored for the market, i.e., the prevalence of the condition in GB, rather than the EU, must not be more than five in 10,000. Should an orphan designation be granted, the period of market exclusivity will be set from the date of first approval of the product in GB.

The U.K. regulatory framework in relation to clinical trials is derived from existing EU legislation (as implemented into U.K. law, through secondary legislation). On January 17, 2022, the MHRA launched an eight-week consultation on reframing the U.K. legislation for clinical trials. The consultation closed on March 14, 2022 and aims to streamline clinical trials approvals, enable innovation, enhance clinical trials transparency, enable greater risk proportionality, and promote patient and public involvement in clinical trials. The MHRA responded to the consultation on March 21, 2023 and confirmed that it would bring forward changes to the

legislation. The final legal texts introduced by the U.K. Government will ultimately determine the extent to which whether the U.K. clinical trials framework aligns with or diverges from with the (EU) CTR.

These developments, or the perception that any related developments could occur, have had and may continue to have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Any of these factors could depress economic activity and restrict our access to capital, which could have a material adverse effect on our business, financial condition and results of operations and reduce the price of our common stock.

The uncertainty regarding new or modified arrangements between the U.K. and other countries following the withdrawal may have a material adverse effect on the movement of personnel, goods, information or data between the U.K. and members of the EU and the U.S., including the interruption of or delays in imports into the U.K. of goods originating within the EU and exports from the U.K. of goods originating there. For example, shipments into the U.K. of medicinal product substance manufactured for us in the EU may be interrupted or delayed and thereby prevent or delay the manufacture in the U.K. of drug product. Similarly, shipments out of the U.K. of drug product to the U.S, or the EU may be interrupted or delayed and thereby prevent or delay the delivery of drug product to clinical sites. Such a situation could hinder our ability to conduct current and planned clinical trials and have an adverse effect on our business.

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, 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 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. 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. The government may also assert 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. 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, 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 Physician Payments Sunshine Act requires applicable manufacturers to report certain payments and “transfers of value” provided to physicians defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain other non-physician practitioners (physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified registered nurse anesthetists, anesthesiology assistants and certified nurse midwives), and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. 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.

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

Numerous state, federal and foreign laws, regulations and standards govern the collection, use, access to, confidentiality and security of health-related and other personal information, and could apply now or in the future to our operations or the operations of our partners. In the U.S., numerous federal and state laws and regulations, including data breach notification laws, health information privacy and security laws and consumer protection laws and regulations govern the collection, use, disclosure, and protection of health-related and other personal information. In addition, certain foreign laws govern the privacy and security of personal data, including health-related data. For example, 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 data protection laws in those jurisdictions where we are established and processing personal data. We are also subject to such laws, when outside the EU or U.K. (as the case may be), where we process personal data relating to individuals in the EU or U.K. “in the context of” an establishment in those markets, where we specifically target goods or services to EU or U.K. residents or where we monitor the behavior of individuals in the EU or U.K. (e.g., 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 General Data Protection Regulation (“GDPR”), the e-Privacy Directive and the national laws and regulations implementing or supplementing each of them. In the U.K., we are subject to the U.K. Data Protection Act 2018, the GDPR as implemented into U.K. law (the “U.K. GDPR”), along with U.K. regulations implementing the e-Privacy Directive. The U.K.’s data protection regime, while currently closely aligned with the EU’s, may diverge over time. The U.K. courts also recognize a civil tort for misuse of private information, distinct from a claim for breach of confidence. Additionally, in the EU and U.K., there are strict regulations on electronic marketing communications and the use of cookies and related technologies, with which we are required to adhere.

The GDPR and U.K. GDPR impose comprehensive data privacy compliance obligations in relation to our collection and use of personal data, including a principal of accountability and the obligation to demonstrate compliance through policies, procedures, training and audit. In addition, some of the personal data we process in respect of clinical trial participants is considered special category or sensitive personal data under the GDPR and U.K. GDPR, and subject to additional compliance obligations. We may be subject to diverging requirements under EU member state laws and U.K. law, such as whether consent can be used as the legal basis for processing of clinical trial data and the roles, responsibilities and liabilities as between CROs and sponsors.

In relation to cross-border transfers, case law from the Court of Justice of the European Union (“CJEU”) states that reliance on the standard contractual clauses - a standard form of contract approved by the European Commission as an adequate personal data transfer mechanism - alone may not necessarily be sufficient in all circumstances and that transfers must be assessed on a case-by-case basis. In relation to data transfers from the EEA to the United States, the EU-US Data Privacy Framework (“DPF”) was approved by the European Commission in July 2023 as an effective EU GDPR data transfer mechanism to U.S. entities self-certified under the DPF. The U.K. Extension to the DPF followed in October 2023, as an effective U.K. GDPR data transfer mechanism to U.S. entities self-certified under the U.K. Extension to the DPF.

There are costs and administrative burdens associated with compliance with the GDPR and U.K. GDPR and the resultant changes in the EU and EEA member states’ national laws. Any failure to comply with global privacy laws carries with it the risk of significant penalties and sanctions. Penalties for certain breaches of the GDPR or U.K. GDPR are up to the greater of 20 million euros / 17.5 million pounds sterling or 4% of global annual turnover. In addition to fines, a breach of the GDPR or U.K. GDPR may result in regulatory investigations, reputational damage, orders to cease/ change our data processing activities, enforcement notices, assessment notices (for a compulsory audit) and/ or civil claims (including class actions).

Privacy and security laws, regulations, and other obligations are constantly evolving, may conflict with each other to complicate compliance efforts, and can result in investigations, proceedings, or actions that lead to significant civil and/or criminal penalties and restrictions on data processing.

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 U.S. 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 U.S., 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 EU, 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. Member states are free to restrict the range of pharmaceutical products for which their national health insurance systems provide reimbursement, and to control the prices and reimbursement levels of pharmaceutical products for human use. 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. Member states may approve a specific price or level of reimbursement for the pharmaceutical product, or alternatively adopt a system of direct or indirect controls on the profitability of the company responsible for placing the pharmaceutical product on the market, including volume-based arrangements, caps and reference pricing mechanisms. 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 permissible 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 and established a Center for Medicare and Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending. Since its enactment, there have been judicial, executive and Congressional challenges to certain aspects of the ACA. On June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA brought by several states without specifically ruling on the constitutionality of the ACA.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In March 2021, the American Rescue Plan Act of 2021 was signed into law, which eliminated the statutory Medicaid drug rebate cap, beginning January 1, 2024. The rebate was previously capped at 100% of a drug's average manufacturer price.

Moreover, 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.

On August 16, 2022, the Inflation Reduction Act of 2022, or IRA, was signed into law. Among other things, the IRA requires manufacturers of certain drugs to engage in price negotiations with Medicare (beginning in 2026), imposes rebates under Medicare Part B and Medicare Part D to penalize price increases that outpace inflation (first due in 2023), and replaces the Part D coverage gap discount program with a new discounting program (beginning in 2025). The IRA permits the Secretary of the Department of Health and Human Services, or HHS, to implement many of these provisions through guidance, as opposed to regulation, for the initial years. On August 29, 2023, HHS announced the list of the first ten drugs that will be subject to price negotiations. HHS has issued and will continue to issue guidance implementing the IRA, although the Medicare drug price negotiation program is currently subject to legal challenges. While the impact of the IRA on the pharmaceutical industry cannot yet be fully determined, it is likely to be significant.

Individual states in the U.S. have also become increasingly active in implementing state laws and regulations addressing pharmaceutical 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. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine which drugs and suppliers will be included in their healthcare programs. Furthermore, there has been increased interest by third party payors and governmental authorities in reference pricing systems and publication of discounts and list prices.

On December 13, 2021, EU Regulation No 2021/2282 on Health Technology Assessment (“HTA”) amending Directive 2011/24/EU, was adopted. While the Regulation entered into force in January 2022, it will only begin to apply from January 2025 onwards, with preparatory and implementation-related steps to take place in the interim. Once applicable, it will have a phased implementation depending on the concerned products: oncology and advanced therapy medicinal products (“ATMPs”) as of 2025, orphan medicinal products as of 2028 and 2030 for all other medicinal products. This Regulation intends to boost cooperation among EU member states in assessing health technologies, including new medicinal products, and provide the basis for cooperation at the EU level for joint clinical assessments in these areas, using methodologies adapted to the specificities of the type of product in question. It will permit EU member states to use common HTA tools, methodologies, and procedures across the EU, working together in four main areas, including joint clinical assessment of the innovative health technologies with the highest potential impact for patients, joint scientific consultations whereby developers can seek advice from HTA authorities, identification of emerging health technologies to identify promising technologies early, and continuing voluntary cooperation in other areas. Individual EU member states will continue to be responsible for assessing non-clinical (e.g., economic, social, ethical) aspects of health technology, and making decisions on pricing and reimbursement.

We expect that additional state, federal or foreign 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.

Human Capital Management

As of December 31, 2023, Mereo had 33 employees. As of December 31, 2023, 27 employees are located in the U.K. and 6 employees are located in the U.S.

All of our employees are engaged in either general and administrative or research and development functions. None of our employees are covered by a collective bargaining agreement. 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 Annual Report), significant effects on our financial position or profitability.

Item 1A. Risk Factors.

Our business has significant risks. You should carefully consider the following risk factors as well as all other information contained in this report, including our consolidated financial statements and the related notes, before making an investment decision regarding our securities. The risks and uncertainties described below are those material risk factors currently known and specific to us that we believe are relevant to our business, results of operations and financial condition. Additional risks and uncertainties not currently known to us or that we now deem immaterial may also impair our business, results of operations and financial condition.

Risks Related to Our Business and Industry

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

We are a multi-asset, clinical-stage biopharmaceutical company with a limited operating history, and have incurred significant operating losses since our formation. For the year-ended December 31, 2023 we had a net loss of \$29.5 million, and we had a net loss of \$42.2 million for the year ended December 31, 2022. As of December 31, 2023, we had an accumulated deficit of \$419.6 million (\$404.6 million as of December 31, 2022). 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 and operating our business infrastructure. We expect to continue to incur significant operating losses for the foreseeable future as we invest in 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:

- undertake the activities required as part of our collaboration with Ultragenyx and potential commercialization of setrusumab, if approved in the EU and the U.K.;
- seek to secure a partnership and prepare for a potential Phase 3 clinical trial of alvelestat for the treatment of severe AATD and support the expansion of the investigator-sponsored study in Bronchiolitis Obliterans Syndrome (“BOS”) into Phase 2;
- potentially establish a commercial infrastructure to commercialize or co-commercialize selected product candidates, if approved;
- undertake development of our product candidates in any additional potential indications;
- seek regulatory approvals for our product candidates;
- work with CMOs to develop manufacturing processes and scale-up for Phase 3 studies and potential commercialization;
- 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, legal and management personnel, including personnel to support the development of our product candidates and potential future commercialization or co-commercialization efforts and support our operations as a U.S. public company listed on Nasdaq;
- expand our operations and potentially hire additional employees in the U.K., U.S. and in Europe, territories where we anticipate direct commercialization or commercialization with a partner; and
- seek to acquire additional novel product candidates to treat rare diseases in the future.

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 revenue from product sales.

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, if approved, or entering into strategic relationships for our current and future product candidates. 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 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 also could cause you to lose all or a part of your investment.

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.

While we have raised approximately \$209 million since 2020 through private placements of ordinary shares and convertible loan notes in 2020, a public offering of ADSs in February 2021 and an “at-the-market” offering of ADSs in 2023, we expect our expenses to increase substantially in connection with our ongoing activities, particularly as we continue to advance our rare disease portfolio. In addition, if we obtain marketing approval for product candidates where we retain commercial rights, we expect to incur significant commercialization expenses related to product sales, marketing, distribution and manufacturing. Furthermore, we expect to continue to incur additional costs associated with operating as a publicly traded company in the U.S. and maintaining a listing on Nasdaq. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We believe that our existing cash and cash equivalents will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into 2026 at which point we will require additional capital. Our failure to obtain sufficient funds on acceptable terms when needed could have a material adverse effect on our business, results of operations and financial condition.

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 for our activities related to our ongoing collaboration with Ultragenyx for setrusumab for the treatment of children and adults with OI and the costs for our preparation for potential commercialization of setrusumab, if approved, in Europe and the U.K, the costs, timing and results of our ongoing investigator-led clinical trials for etigilimab in combination with nivolumab in clear cell ovarian cancer and for alvelestat in AATD and in patients with BOS;
- 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, life cycle management and distribution, for any of 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 performance of our collaborators and partners under the existing agreements on setrusumab, navicixizumab and leflutrolole;
- the extent to which we are able to acquire new product candidates or enter into licensing or collaboration arrangements for our product candidates;
- milestone and deferred payments under our license and option agreement with AstraZeneca; and
- tax liabilities or other assessments and our ability to claim R&D tax credits or other reliefs.

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.

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.

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, etigilimab, acumapimod and leflutrolole; building our intellectual property portfolio; developing our supply chain; planning our business; raising capital; and providing general and administrative support for these operations. Additionally, prior to our acquisition of etigilimab and navicixizumab in the Merger, Mereo BioPharma 5 (formerly OncoMed) had invested significant resources to developing both product candidates. 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, pharmaceutical and biotechnology 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 and biotechnology 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 transactions 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. 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 to decline.

We depend heavily on the success of setrusumab, alvelestat and etigilimab. We cannot give any assurance that any of these product candidates will receive regulatory approval, which is necessary before they can be commercialized. If we are unable to commercialize setrusumab, alvelestat and etigilimab, whether on our own or through agreements with third parties, 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 and etigilimab, among other product candidates in our portfolio. 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 potential 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 by us or our partners, and significant marketing efforts before we generate any revenue from product sales or royalties.

We are not permitted to market or promote any product candidates in the U.S., EU, U.K., or other countries before we receive regulatory approval from the FDA, the EMA, or comparable U.K. or foreign regulatory authorities, and we may never receive such regulatory approval for our current product candidates. We have not submitted a BLA or an NDA to the FDA, an MAA or CMA to the EMA, or comparable applications to other regulatory authorities. The success of our current product candidates will depend on many factors, including the following:

- successful initiation and completion of preclinical studies with favorable results, including toxicology and other studies designed to be compliant with good laboratory practices (“GLP”);
- allowance to proceed with clinical trials under Investigational New Drug applications (“INDs”), by the FDA, or of similar regulatory submissions by comparable foreign regulatory authorities for the conduct of clinical trials of our product candidates;

- successful initiation, enrollment and completion of clinical studies in accordance with Good Clinical Practice (“GCP”) requirements and other applicable rules and regulations;
- the frequency and severity of adverse events observed in clinical trials;
- maintaining and establishing relationships with contract research organizations (“CROs”) and clinical sites for the clinical development of our product candidates;
- demonstrating the safety, purity, and potency, or efficacy of our product candidates to the satisfaction of the FDA and other applicable regulatory authorities;
- receipt of regulatory approvals from applicable regulatory authorities, including approvals of NDAs or BLAs from the FDA, or MAAs from the EMA and maintaining any such approvals;
- making arrangements with our third-party manufacturers for, or establishing, clinical or commercial manufacturing capabilities;
- establishing sales, marketing and distribution capabilities and launching commercial sales of our product candidates, if and when approved, whether alone or in collaboration with others;
- obtaining, establishing and maintaining patent and trade secret protection or regulatory exclusivity for our product candidates;
- maintaining an acceptable safety profile for our product candidates following regulatory approval, if any;
- maintaining and growing an organization of people who can develop and, if approved, commercialize, market and sell our product candidates, if approved; 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, BOS or certain oncology indications; 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 in the U.S., U.K. and the EU, and potentially in additional 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.

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 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.

The U.K.'s withdrawal from the EU, commonly referred to as Brexit, could increase our cost of doing business or otherwise negatively impact our business, results of operations and financial condition.

Brexit could increase our cost of doing business or otherwise negatively impact our business, results of operations and financial condition. Brexit continues to create uncertainty concerning the future relationship between the U.K. and the EU, following the U.K.'s withdrawal from the EU in January 2020. Our principal office is located in the U.K. and together with our partners we conduct clinical trials in the EU. Since a significant portion of the regulatory framework in the U.K. is derived from EU laws, Brexit materially impacts the regulatory regime with respect to the development, manufacture, importation, approval and commercialization of our product candidates in the U.K. or the EU.

Since the end of the Brexit transition period on January 1, 2021, Great Britain (England, Scotland and Wales) has not been directly subject to EU laws, however under the terms of the Ireland/Northern Ireland Protocol, EU laws generally apply to Northern Ireland. It is currently unclear to what extent the U.K. Government will seek to align its regulations with the EU. The EU laws that have been transposed into U.K. law through secondary legislation remain applicable in Great Britain, however new legislation such as the EU Clinical Trials Regulation ("CTR") is not applicable in Great Britain. While the EU-U.K. Trade and Cooperation Agreement ("TCA") includes the mutual recognition of Good Manufacturing Practice ("GMP") inspections of manufacturing facilities for medicinal products and GMP documents issued, it does not contain wholesale mutual recognition of U.K. and EU pharmaceutical regulations and product standards. There may be divergent local requirements in Great Britain from the EU in the future, which may impact clinical and development activities that occur in the U.K. in the future. Similarly, clinical trial submissions in the U.K. will not be able to be bundled with those of EU countries within the EMA Clinical Trial Information System ("CTIS"), adding further complexity, cost and potential risk to future clinical and development activity in the U.K. Significant political and economic uncertainty remains about how much the relationship between the U.K. and EU will differ as a result of the U.K.'s withdrawal.

Such a withdrawal from the EU is unprecedented, and it is unclear how the U.K.'s access to the European single market for goods, capital, services and labor within the EU, or single market, and the wider commercial, legal and regulatory environment, will impact our current and future operations, including activities conducted by third parties and contract manufacturers on our behalf. In addition to the foregoing, our U.K. operations support our current and future operations and clinical activities in other countries in the EU and EEA and these operations and clinical activities could be disrupted by the ongoing effects of Brexit.

Since the regulatory framework in the U.K. covering quality, safety and efficacy of pharmaceutical products, clinical trials, marketing authorization ("MA"), commercial sales and distribution of pharmaceutical products is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime with respect to the potential commercialization of our products in the U.K. Under the Medicines and Medical Devices Act 2021, the Secretary of State or an 'appropriate authority' has delegated powers to amend or supplement existing regulations in the area of medicinal products and medical devices. This allows new rules to be introduced in the future by way of secondary legislation, which aims to allow flexibility in addressing regulatory gaps and future changes in the fields of human medicines, clinical trials and medical devices. Any delay in commercializing our products in the U.K. and/or the EU could restrict our ability to generate revenue. The uncertainty around the U.K.'s future relationship with the EU continues to cause economic uncertainty which could adversely affect our business, financial condition and results of operations and could adversely affect the market price of our ADSs.

Following the licensing agreements for navicixizumab and leflutrolole, and the completion of a strategic partnership for setrusumab, and if we out-license or sell our non-core product candidates or out-license any of our core rare disease product candidates for any territories, we could be exposed to future liabilities.

In January 2021, we completed a strategic partnership for setrusumab and completed the out-license of navicixizumab and leflutrolole in January 2020 and in December 2023, respectively. We plan to partner or sell or out-license our non-core product candidate, acumapimod for the treatment of AECOPD, 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 out-licensing or sale arrangements or partnerships. 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 an out-license or sale 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.

Our business is subject to unstable market, economic, political, regulatory and other risks in a number of international operations and business disruptions could seriously harm our financial condition and increase costs.

The global credit and financial markets have experienced extreme volatility and disruptions (including as a result of the COVID-19 pandemic and actual or perceived changes in interest rates and economic inflation), which has included severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, high inflation, uncertainty about economic stability and swings in unemployment rates. The financial markets and the global economy may also be adversely affected by the current or anticipated impact of supply chain disruptions, labor shortages, fluctuations in currency exchange rates, changes in interest rates, trade barriers, military conflict, acts of terrorism or other geopolitical events.

Our business is subject to many of these risks as we conduct business internationally. We source research and development, manufacturing, consulting, and other services from companies based throughout the U.S., the EU, the U.K., Switzerland, India and China and we conduct our clinical trials in the U.S., Canada, certain European countries, and other countries. Accordingly, our future results could be harmed by a variety of factors, any or all of which could disrupt our supply chain, adversely affect the cost of raw materials and other services, adversely affect our ability to conduct ongoing and future clinical trials of our product candidates, and adversely affect our ability to commercialize our products (subject to regulatory approval).

- economic weakness, including inflation, or political instability in particular non-U.K. economies and markets;
- deteriorations in equity and credit markets making future equity or debt financing more difficult, more costly and more dilutive.
- 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 U.K.'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 U.K.;
- workforce uncertainty in countries where labor unrest is more common than in the U.K.;
- difficulties associated with staffing and managing international operations, including differing labor relations;
- interruptions resulting from one or more of our current service providers, manufacturers and other partners not surviving an economic downturn,

- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad;
- 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; and
- business interruptions resulting from health epidemics.

The impact of the Russian invasion of Ukraine and the Israel-Hamas war on the global economy, energy supplies and raw materials is uncertain, but may prove to negatively impact our business and operations.

The short and long-term implications of Russia's invasion of Ukraine and the Israel-Hamas war are difficult to predict at this time. We continue to monitor any adverse impact that the outbreak of war in Ukraine, the subsequent institution of sanctions against Russia by the U.S. and several European and Asian countries, and the Israel-Hamas war may have on the global economy in general, on our business and operations and on the businesses and operations of our suppliers and other third parties with which we conduct business. For example, a prolonged conflict in Ukraine or Israel may result in increased inflation, escalating energy prices and constrained availability, and thus increasing costs, of raw materials. We will continue to monitor this fluid situation and develop contingency plans as necessary to address any disruptions to our business operations as they develop. To the extent the wars in Ukraine or Israel may adversely affect our business as discussed above, it may also have the effect of heightening many of the other risks described herein. Such risks include, but are not limited to, adverse effects on macroeconomic conditions, including inflation; disruptions to our global technology infrastructure, including through cyberattack, ransom attack, or cyber-intrusion; adverse changes in international trade policies and relations; disruptions in global supply chains; and constraints, volatility, or disruption in the capital markets, any of which could negatively affect our business and financial condition.

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 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 retain, 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.

Changes in our tax rates, unavailability of certain tax credits or reliefs, or exposure to additional tax liabilities or assessments could adversely affect our results of operations and financial condition.

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 operating losses since formation. As of December 31, 2023 and 2022, we had cumulative carry-forward tax losses of \$122.2 million, \$151.3 million, respectively. The availability to carry forward and offset these tax loss carry-forwards against future operating profits is subject to certain restrictions.

As a company that carries out extensive research and development ("R&D") activities, we benefit from the U.K. HM Revenue and Customs ("HMRC") small and medium sized enterprises research and development relief, or SME R&D Relief, which provides relief against U.K. Corporation Tax and enables us to surrender some of our trading losses that arise from our research and development activities for a cash rebate. To date, a cash rebate of up to 33.35% of eligible R&D expenditure has been available, but the cash rebate has reduced to a maximum of 27% for R&D intensive companies where at least 40% of their total expenditure is on qualifying R&D, or to 18.6% of eligible R&D expenditure for other companies, with effect from April 1, 2023 pursuant to changes

made by the Finance Act 2023. Certain subcontracted qualifying research expenditures are eligible for a cash rebate though the rate of the cash rebate has reduced with effect from April 1, 2023, from up to 21.67% of the subcontracted expenditures to 17.53% for R&D intensive companies or 12.09% for other companies. The difference in cash rebate for qualifying subcontracted expenditure vs other qualifying expenditure is due to a statutory restriction of 65% being applied to unconnected qualifying subcontracted expenditure, thus restricting the benefit available. In addition, 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 that case, we would expect to benefit from the taxable credit for qualifying R&D expenditure under the R&D Expenditure Credit (RDEC) scheme available to large companies which may be either offset against corporation tax liabilities or paid net of tax as a cash credit where there is no liability in the future. Subcontracted expenditure however is in most cases not a qualifying cost under the current RDEC scheme but is expected to be a qualifying cost (unless it relates to non-qualifying costs subcontracted overseas) under the new merged RDEC scheme, that will come into force for accounting periods beginning on or after April 1, 2024. In the event we generate revenues in the future, we may also 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 following election into the regime. 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 carry forwards and certain built-in losses to reduce future tax payments, our business, results of operations, and financial condition may be adversely affected.

New rules were introduced, effective for accounting periods starting after April 1, 2021, whereby the amount of SME payable R&D tax credit that a business can receive in any one year will be capped at £20,000 plus three times the company’s total Pay As You Earn (PAYE) and National Insurance contributions (NIC) liability. Exemptions to the cap have been introduced which are available to companies that meet certain conditions. We do not believe these changes could have an impact on our tax credit for the year ending December 31, 2023, which would be payable in 2024. If tax authorities challenge our determinations and/or audit prior periods there could be adverse tax consequences to us that could adversely affect our results of operations and financial condition.

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

Prior to our acquisition of setrusumab, alvelestat, etigilimab, acumapimod, leflutroazole and navicixizumab, we were not involved in the development of these product candidates and, as a result, we are dependent on Novartis, AstraZeneca and Mereo BioPharma 5 (formerly 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 Mereo BioPharma 5. 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 Mereo BioPharma 5 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 Mereo BioPharma 5 has not done this, the clinical development, regulatory approval, or commercialization of our product candidates may be adversely affected.

Clinical and preclinical development involves a lengthy and expensive process with an uncertain outcome. Any difficulties or delays in the commencement or completion, or the termination or suspension, of our or our partners current or planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue or adversely affect our commercial prospects.

Before obtaining approval from regulatory authorities for the commercialization of any of our product candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidate, or with respect to product candidates regulated as biologics, safety, purity and potency, in humans. Before we can initiate clinical trials for any product candidates, we must submit the results of preclinical studies to the FDA or comparable foreign regulatory authorities along with other information, including information about product candidate chemistry, manufacturing and controls and our proposed clinical trial protocol, as part of an IND or similar regulatory submission. The FDA or comparable foreign regulatory authorities may require us to conduct additional preclinical studies for any product candidate before it allows us to initiate clinical trials under any IND or similar regulatory submission, which may lead to delays and increase the costs of our preclinical development programs. Moreover, even if we commence clinical trials, issues may arise that could cause regulatory authorities to suspend or terminate such clinical trials. Any such delays in the commencement or completion of our ongoing and planned clinical trials for our product candidates could significantly affect our product development timelines and product development costs and harm our financial position.

The results from preclinical studies or early clinical trials of a product candidate may not predict the results of later clinical trials of the product candidate, and interim results of a clinical trial are not necessarily indicative of final results. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy characteristics despite having progressed through preclinical studies and initial clinical trials. It is not uncommon to observe results in clinical trials that are unexpected based on preclinical studies and early clinical trials, and many product candidates fail in clinical trials despite very promising early results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier studies.

We do not know whether our planned clinical trials will begin on time or be completed on schedule, if at all. The commencement, data readouts and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation or continuation of clinical trials;
- Obtaining allowance or approval from regulatory authorities to commence a trial or reaching a consensus with regulatory authorities on trial design;
- the FDA, EMA or comparable foreign regulatory authorities disagreeing as to the design or implementation of our clinical trials;
- any failure or delay in reaching an agreement with 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;
- delays in identifying, recruiting and training suitable clinical investigators;
- obtaining approval or positive opinion from one or more institutional review boards (“IRBs”), or ethics committees at clinical trial sites;
- IRBs refusing to approve, suspending or terminating the trial at an investigational site, precluding enrollment of additional subjects, or withdrawing their approval of the trial;
- changes or amendments to the clinical trial protocol;
- clinical sites deviating from the trial protocol or dropping out of a trial;
- failure by our CROs to perform in accordance with GCP requirements or applicable regulatory rules and guidelines in other countries;
- manufacturing sufficient quantities of our product candidates, or obtaining sufficient quantities of combination therapies for use in clinical trials;
- subjects failing to enroll or remain in our trials at the rate we expect, or failing to return for post-treatment follow-up, including subjects failing to remain in our trials;
- patients choosing an alternative product for the indications for which we are developing our product candidates, or participating in competing clinical trials;
- lack of adequate funding to continue a clinical trial, or costs being greater than we anticipate;
- subjects experiencing severe or serious unexpected drug-related adverse effects;
- occurrence of serious adverse events in trials of the same class of agents conducted by other companies that could be considered similar to our product candidates;
- selection of clinical endpoints that require prolonged periods of clinical observation or extended analysis of the resulting data;

- transfer of manufacturing processes to larger-scale facilities operated by a CMO delays or failure by our CMOs or us to make any necessary changes to such manufacturing process, or failure of our CMOs to produce clinical trial materials in accordance with current Good Manufacturing Practice (“cGMP”) or similar foreign requirements, regulations or other applicable requirements; and
- third parties being unwilling or unable to satisfy their contractual obligations to us in a timely manner.

Clinical trials must be conducted in accordance with the FDA and other applicable regulatory authorities’ legal requirements, regulations and guidelines, and remain subject to oversight by these governmental agencies and ethics committees or IRBs at the medical institutions where such clinical trials are conducted. We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by a Data Safety Monitoring Board for such trial or by the FDA or comparable foreign 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 applicable clinical trial protocols, adverse findings from inspections of clinical trial sites by the FDA, EMA or comparable foreign regulatory authorities, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. In addition, changes in regulatory requirements and policies may occur, and we may need to amend clinical trial protocols to comply with these changes. Amendments may require us to resubmit our clinical trial protocols to regulators or to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial.

In addition, the FDA’s and other regulatory authorities’ policies with respect to clinical trials may change and additional government regulations may be enacted. For instance, the regulatory landscape related to clinical trials in the EU recently evolved. The EU Clinical Trials Regulation (“CTR”) which was adopted in April 2014 and repeals the EU Clinical Trials Directive, became applicable on January 31, 2022. While the EU Clinical Trials Directive required a separate clinical trial application (“CTA”) to be submitted in each member state in which the clinical trial takes place, to both the competent national health authority and an independent ethics committee, the CTR introduces a centralized process and only requires the submission of a single application for multi-center trials. The CTR allows sponsors to make a single submission to both the competent authority and an ethics committee in each member state, leading to a single decision per member state. The assessment procedure of the CTA has been harmonized as well, including a joint assessment by all member states concerned, and a separate assessment by each member state with respect to specific requirements related to its own territory, including ethics rules. Each member state’s decision is communicated to the sponsor via the centralized EU portal. Once the CTA is approved, clinical study development may proceed. The CTR foresees a three-year transition period. The extent to which ongoing and new clinical trials will be governed by the CTR varies. Clinical trials for which an application was submitted (i) prior to January 31, 2022 under the EU Clinical Trials Directive, or (ii) between January 31, 2022 and January 31, 2023 and for which the sponsor has opted for the application of the EU Clinical Trials Directive remain governed by said Directive until January 31, 2025. After this date, all clinical trials (including those which are ongoing) will become subject to the provisions of the CTR. Compliance with the CTR requirements by us, and our third-party service providers, such as CROs, may impact our developments plans.

If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies governing clinical trials, our development plans may be impacted.

It is currently unclear to what extent the U.K., will seek to align its clinical trials legislation with the EU. The U.K. regulatory framework in relation to clinical trials is derived from EU clinical trials legislation which pre-dated the CTR (as implemented into U.K. law, through secondary legislation). On January 17, 2022, the U.K. Medicines and Healthcare products Regulatory Agency (“MHRA”) launched an eight-week consultation on reframing the U.K. legislation for clinical trials. The MHRA responded to the consultation on March 21, 2023 and confirmed that it would bring forward changes to the legislation. The final legal texts introduced by the U.K. Government will ultimately determine the extent to which whether the U.K. clinical trials framework aligns with or diverges from with the CTR. A decision by the U.K. Government not to closely align its regulations with the new approach that has been adopted in the EU may have an effect on the cost of conducting clinical trials in the U.K. as opposed to other countries. If there are divergent local requirements in Great Britain from the EU in the future, this may impact clinical and development activities that occur in the U.K. in the future. Similarly, clinical trial submissions in the U.K. will not be able to be bundled with those of EU countries within the EMA Clinical Trial Information System (“CTIS”), adding further complexity, cost and potential risk to future clinical and development activity in the U.K.

Further, conducting clinical trials in foreign countries, as we may do for our product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled subjects in foreign countries to adhere to clinical protocols as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, and political and economic risks, including war, relevant to such foreign countries.

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 or comparable foreign regulatory authorities. The FDA or comparable foreign 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 or comparable foreign 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 or comparable foreign regulatory authority, as the case may be, and may ultimately lead to the denial of marketing approval of one or more of our product candidates.

In addition, many of the factors that cause, or lead to, the termination suspension of, or a delay in the commencement or completion of, clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. Any resulting delays to our clinical trials could shorten any period during which we may have the exclusive right to commercialize our product candidates. In such cases, our competitors may be able to bring products to market before we do, and the commercial viability of our product candidates could be significantly reduced. Any of these occurrences may harm our business, financial condition and prospects.

Interim, “top-line” and preliminary data from our clinical trials and preclinical studies 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 publicly disclose interim, top-line, or preliminary data from our clinical trials and preclinical studies, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the interim, top-line, or preliminary results that we report may differ from future results of the same studies or trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Top-line and preliminary data also remain subject to audit and verification procedures that may result in the final data being materially different from the top-line or preliminary data we previously published. As a result, top-line and preliminary data should be viewed with caution until the final data are available.

Interim data from clinical trials that we may complete are further 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. Adverse differences between interim, top-line, or preliminary data and final data could significantly harm our business prospects. Further, disclosure of such data by us or by our competitors could result in volatility in the price of our common stock.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our Company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product candidate or our business. If the interim, top-line, or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed, which could harm our business, operating results, prospects or financial condition.

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 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, or other foreign authorities, or, if such product candidates are approved, result in a more restrictive label and other post-approval requirements. Any treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial, or could result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly. If our product candidates are associated with undesirable side effects or have unexpected characteristics in preclinical studies or clinical trials, we may need to interrupt, delay or abandon their development or limit development to more

narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective.

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, development efforts of that product candidate altogether. We, our partners, the FDA, other comparable foreign regulatory authorities or an IRB may suspend clinical trials of a product candidate at any time for various reasons, including a belief that subjects in such trials are being exposed to unacceptable health risks or adverse side effects. Even if the side effects do not preclude the product candidate from obtaining or maintaining regulatory approval, undesirable side effects may inhibit market acceptance due to tolerability concerns as compared to other available therapies. Any of these developments could materially harm our business, financial condition and prospects.

Drug-related side effects could also 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 or modify 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 Risk Evaluation and Mitigation Strategy (“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. We have conducted several large-scale manufacturing runs of drug substance and drug product at third-party CMOs without observing any opalescence and we have further conducted formulation studies in order to minimize any risk of significant opalescence or of aggregate formation. We have also conducted product stability studies and excipient optimization, resulting in a change in the methodology for product reconstitution; however, 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. 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 as there are a significant number of studies ongoing in oncology in the U.S. and Europe. Due to the small number of patients for any rare disease or tumor type, 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. There are an estimated 50,000 and 60,000 persons in North America and Europe, respectively, with the genotypes that we could enroll in our clinical trials for AATD, the target indication for alvelestat. However, due to underdiagnosis, there are estimated to be approximately 10,000 patients diagnosed in North America. Patient enrollment depends on many factors, including:

- size and nature of the targeted patient population;
- severity of the disease or condition under investigation;
- availability and efficacy of approved therapies for the disease or condition under investigation;
- patient eligibility criteria for the trial in question as defined in the protocol;
- perceived risks and benefits of the product candidate under study;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any products that may be approved for, or any product candidates under investigation for, the indications we are investigating;
- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment;
- proximity and availability of clinical trial sites for prospective patients;
- continued enrollment of prospective patients by clinical trial sites; and
- the risk that patients enrolled in clinical trials will drop out of such trials before completion.

These factors and others outside our control may make it difficult for us to enroll enough patients to complete our clinical trials in a timely and cost-effective manner. For example, the COVID-19 pandemic previously resulted in delays in our ability to enroll and treat patients and obtain data from clinical trials, particularly patients with severe AATD. We also rely on, and will continue to rely on, CROs and clinical trial sites to ensure proper and timely conduct of our clinical trials and preclinical studies. Though we have entered into agreements governing their services, we will have limited influence over their actual performance. Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates and jeopardize our ability to obtain regulatory approval for the sale of our product candidates. Furthermore, even if we are able to enroll a sufficient number of patients for our clinical trials, we may have difficulty maintaining enrollment of such patients in our clinical trials.

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 and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of our product candidates are subject to extensive regulation by the FDA in the U.S. and by comparable foreign regulatory authorities in foreign markets, such as the EMA. In the U.S., we are not permitted to market our product candidates in the U.S. until we receive regulatory approval of a BLA or NDA from the FDA. The process of obtaining such regulatory approval is expensive, often takes many years following the commencement of clinical trials and can vary substantially based upon the type, complexity and novelty of the product candidates involved, as well as the target indications and patient population. Approval policies or regulations may change, and the FDA, EMA and comparable foreign regulatory authorities have substantial discretion in the approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, regulatory approval of a product candidate is never guaranteed. Of the large number of drugs in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized.

Prior to obtaining approval to commercialize a product candidate in the U.S. or abroad, we must demonstrate with substantial evidence from adequate and well-controlled clinical trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that such product candidates are safe and effective for their intended uses, and in the case of biological products, that such product candidates are safe, pure and potent. Results from nonclinical studies and clinical trials can be interpreted in different ways. Even if we believe available nonclinical or clinical data support the safety, purity, potency, or efficacy, of our product candidates, such data may not be sufficient to obtain approval from the FDA and comparable foreign regulatory authorities. The FDA, EMA or comparable foreign regulatory authorities, as the case may be, may also require us to conduct additional preclinical studies or clinical trials for our product candidates either prior to or post-approval, or may object to elements of our clinical development program.

The FDA, EMA or comparable foreign regulatory authorities can delay, limit or deny approval of a product candidate for many reasons, including:

- such authorities may disagree with the design or execution of our clinical trials;
- negative or ambiguous results from our clinical trials or results may not meet the level of statistical significance required by the FDA, EMA or comparable foreign regulatory agencies for approval;
- serious and unexpected drug-related side effects may be experienced by participants in our clinical trials or by individuals using drugs similar to our product candidates;
- the population studied in the clinical trial may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- such authorities may not accept clinical data from trials that are conducted at clinical facilities or in countries where the standard of care is potentially different from that of their own country;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- such authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- such authorities may not agree that the data collected from clinical trials of our product candidates are acceptable or sufficient to support the submission of a BLA, NDA, MAA or other submission or to obtain regulatory approval in the U.S. or elsewhere, and such authorities may impose requirements for additional preclinical studies or clinical trials;
- such authorities may disagree with us regarding the formulation, labeling and/or the product specifications of our product candidates;
- approval may be granted only for indications that are significantly more limited than those sought by us, and/or may include significant restrictions on distribution and use;
- such authorities may find deficiencies in the manufacturing processes or facilities of the third-party manufacturers with which we contract for clinical and commercial supplies; or
- such authorities may not accept a submission due to, among other reasons, the content or formatting of the submission.

With respect to foreign markets, approval procedures vary among countries and, in addition to the foregoing risks, may involve additional product testing, administrative review periods and agreements with pricing authorities.

Even if we eventually complete clinical trials and receive approval of a BLA, NDA, MAA or comparable marketing application for our product candidates, the FDA or a comparable regulatory authority may grant approval contingent on the performance of costly additional clinical trials and/or the implementation of a REMS, which may be required because the FDA believes it is necessary to ensure safe use of the product after approval. Any delay in obtaining, or inability to obtain, applicable regulatory approval would delay or prevent commercialization of that product candidate and would materially adversely impact our business and prospects.

In addition, FDA and foreign regulatory authorities may change their approval policies and new regulations may be enacted. For instance, the EU pharmaceutical legislation is currently undergoing a complete review process, in the context of the Pharmaceutical Strategy for Europe initiative, launched by the European Commission in November 2020. The European

Commission's proposal for revision of several legislative instruments related to medicinal products (potentially reducing the duration of regulatory data protection, revising the eligibility for expedited pathways, etc.) was published on April 26, 2023. The proposed revisions remain to be agreed and adopted by the European Parliament and European Council and the proposals may therefore be substantially revised before adoption, which is not anticipated before early 2026. The revisions may however have a significant impact on the biopharmaceutical industry in the long term.

We may attempt to secure approval from the FDA or comparable foreign regulatory authorities through the use of accelerated approval pathways. If we are unable to obtain such approval, we may be required to conduct additional preclinical studies or clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals. Even if we receive accelerated approval from the FDA, if our confirmatory trials do not verify clinical benefit, or if we do not comply with rigorous post-marketing requirements, the FDA may seek to withdraw any accelerated approval we have obtained.

We may in the future seek accelerated approval for our one or more of our product candidates. Under the accelerated approval program, the FDA may grant accelerated approval to a product candidate designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the product candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit.

The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional confirmatory studies to verify and describe the drug's clinical benefit. If such post-approval studies fail to confirm the drug's clinical benefit or are not completed in a timely manner, the FDA may withdraw its approval of the drug on an expedited basis. In addition, in December 2022, President Biden signed an omnibus appropriations bill to fund the U.S. government through fiscal year 2023. Included in the omnibus bill is the Food and Drug Omnibus Reform Act of 2022, which among other things, provided FDA new statutory authority to mitigate potential risks to patients from continued marketing of ineffective drugs previously granted accelerated approval. Under these provisions, the FDA may require a sponsor of a product seeking accelerated approval to have a confirmatory trial underway prior to such approval being granted.

Prior to seeking accelerated approval for any of our product candidates, we intend to seek feedback from the FDA and will otherwise evaluate our ability to seek and receive accelerated approval. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit an NDA or BLA for accelerated approval or any other form of expedited development, review or approval. Furthermore, if we decide to submit an application for accelerated approval for our product candidates, there can be no assurance that such application will be accepted or that any expedited development, review or approval will be granted on a timely basis, or at all. The FDA or other comparable foreign regulatory authorities could also require us to conduct further studies prior to considering our application or granting approval of any type. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidate would result in a longer time period to commercialization of such product candidate, if any, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

Disruptions at the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire, retain or deploy key leadership and other personnel, prevent new or modified products from being developed, reviewed, approved or commercialized in a timely manner or at all, which could negatively impact our business.

The ability of the FDA and foreign regulatory authorities to review and approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory, and policy changes, the FDA's or foreign regulatory authorities' ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the FDA's or foreign regulatory authorities' ability to perform routine functions. Average review times at the FDA and foreign regulatory authorities have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies, such as the EMA following its relocation to Amsterdam and resulting staff changes, may also slow the time necessary for new drugs, and biologics or modifications to approved drugs and biologics to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has

shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities.

Separately, in response to the global COVID-19 pandemic, the FDA postponed most inspections of domestic and foreign manufacturing facilities at various points. Even though the FDA has since resumed standard inspection operations any resurgence of the virus or emergence of new variants may lead to further inspectional delays. If a prolonged government shutdown occurs, or if global health concerns prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our 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 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 or similar foreign 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, and other comparable foreign 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 if we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facilities where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. In addition, failure to comply with FDA and other comparable foreign regulatory requirements may subject our company to administrative or judicially imposed sanctions, including:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary or mandatory product recalls;
- restrictions on product distribution or use, or requirements to conduct post-marketing studies or clinical trials;
- fines, restitutions, disgorgement of profits or revenues, warning letters, untitled letters or holds on clinical trials;
- refusal by the FDA or comparable foreign regulatory authority to approve pending applications or supplements to approved applications submitted by us or suspension or revocation of approvals;
- product seizure or detention, or refusal to permit the import or export of our products; and
- injunctions or the imposition of civil or criminal penalties.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our product candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity.

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 U.S., the U.K., EU, or other jurisdictions. 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 be subject to enforcement action 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 U.S. 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 U.S., the EU, the U.K. or any other markets, and our management team does not have experience in obtaining regulatory approval in markets outside of the U.S., the EU and the U.K. 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 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 and U.K., which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the EU and U.K., respectively. If we do not comply with our obligations under these privacy regimes, 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 U.S., EU, the U.K. 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 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;
- 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 of branded and generic drugs, respectively;
- a 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 Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- establishment of a Center for Medicare and Medicaid 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, executive and congressional challenges to certain aspects of the ACA. On June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA brought by several states without specifically ruling on the constitutionality of the ACA. In addition, other legislative changes have been proposed and adopted since the ACA was enacted. For example, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminated the statutory Medicaid drug rebate cap, beginning January 1, 2024. The rebate was previously capped at 100% of a drug’s average manufacturer price.

Moreover, heightened governmental scrutiny is likely to continue over the manner in which manufacturers set prices for their marketed products, which has resulted in 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. On August 16, 2022, the Inflation Reduction Act of 2022, or IRA, was into law. Among other things, the IRA requires manufacturers of certain drugs to engage in price negotiations with Medicare (beginning in 2026), imposes rebates under Medicare Part B and Medicare Part D to penalize price increases that outpace inflation (first due in 2023), and replaces the Part D coverage gap discount program with a new discounting program (beginning in 2025). The IRA permits the Secretary of the Department of Health and Human Services, or HHS, to implement many of these provisions through guidance, as opposed to regulation, for the initial years. On August 29, 2023, HHS announced the list of the first ten drugs that will be subject to price negotiations. HHS has issued and will continue to issue guidance implementing the IRA, although the Medicare drug price negotiation program is currently subject to legal challenges. While the impact of the IRA on the pharmaceutical industry cannot yet be fully determined, it is likely to be significant. 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 U.S. have also become increasingly active 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 and U.K., 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 member state level or in the U.K. 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.

On December 13, 2021, EU Regulation No 2021/2282 on Health Technology Assessment (“HTA”) amending Directive 2011/24/EU, was adopted. While the Regulation entered into force in January 2022, it will only begin to apply from January 2025 onwards, with preparatory and implementation-related steps to take place in the interim. Once applicable, it will have a phased implementation depending on the concerned products: oncology and advanced therapy medicinal products (“ATMPs”) as of 2025, orphan medicinal products as of 2028 and 2030 for all other medicinal products. This Regulation intends to boost cooperation among EU member states in assessing health technologies, including new medicinal products, and provide the basis for cooperation at the EU level for joint clinical assessments in these areas, using methodologies adapted to the specificities of the type of product in question. It will permit EU member states to use common HTA tools, methodologies, and procedures across the EU, working together in four main areas, including joint clinical assessment of the innovative health technologies with the highest potential impact for patients, joint scientific consultations whereby developers can seek advice from HTA authorities, identification of emerging health technologies to identify promising technologies early, and continuing voluntary cooperation in other areas. Individual EU member states will continue to be responsible for assessing non-clinical (e.g., economic, social, ethical) aspects of health technology, and making decisions on pricing and reimbursement.

In markets outside of the U.S., the EU and the U.K., 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 U.S., the EU, the U.K., 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.

There have been, and likely will continue to be, additional legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. Such reforms could have an adverse effect on anticipated revenues from product candidates that we may successfully develop and for which we may obtain marketing approval and may affect our overall financial condition and ability to develop product candidates.

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 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;
- 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 (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain other non-physician practitioners (physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified registered nurse anesthetists, anesthesiology assistants and certified nurse midwives), 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
- similar healthcare laws and regulations in the EU, the U.K. 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 U.S.), 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.

The global data protection landscape is rapidly evolving, and we are or may become subject to numerous state, federal and foreign laws, requirements and regulations governing the collection, use, disclosure, retention, and security of personal information, such as information that we may collect in connection with clinical trials in the U.S. and abroad. Implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future, and we cannot yet determine the impact future laws, regulations, standards, or perception of their requirements may have on our business. This evolution may create uncertainty in our business, affect our ability to operate in certain jurisdictions or to collect, store, transfer use and share personal information, necessitate the acceptance of more onerous obligations in our contracts, result in liability or impose additional costs on us. The cost of compliance with these laws, regulations and standards is high and is likely to increase in the future. Any failure or perceived failure by us to comply with federal, state or foreign laws or regulations, our internal policies and procedures or our contracts governing our processing of personal information could result in negative publicity, government investigations and enforcement actions, claims by third parties and damage to our reputation, any of which could have a material adverse effect on our business, results of operation, and financial condition.

Our operations abroad may also be subject to increased scrutiny or attention from data protection authorities. For example, we are subject to diverse laws and regulations relating to data privacy and security in the EU, and the U.K. including the GDPR and U.K. 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 and U.K. GDPR implement stringent operational requirements for controllers and processors of personal data, including comprehensive data privacy compliance obligations in relation to our collection, processing, sharing, disclosure, transfer and other use of personal data, including a principal of accountability and the obligation to demonstrate compliance through policies, procedures, training and audit. Failure by us, or our partners or service providers, to comply with the GDPR or U.K. GDPR could result in regulatory investigations, enforcement notices and/or fines of up to the higher of €20 million or £17.5 million or up to 4% of our total worldwide annual turnover. In addition to the foregoing, any breach of privacy laws or data security laws could have a material adverse effect on our business, reputation and financial condition. We may also face civil claims seeking compensation for both material and immaterial harms arising from a GDPR or U.K. GDPR violation. The GDPR and U.K. GDPR also regulate cross-border transfers of personal data to third countries that have not been found to provide adequate protection to such personal data, including the U.S., and the efficacy and longevity of current transfer mechanisms between the EEA, and the U.S. remains uncertain. We expect the existing legal complexity and uncertainty regarding international personal data transfers to continue. In particular, we expect the European Commission approval of the current EU-US Data Privacy Framework for data transfers to certified entities in the United States to be challenged and international transfers to the United States and to other jurisdictions more generally to continue to be subject to enhanced scrutiny by regulators. As the regulatory guidance and enforcement landscape in relation to data transfers further develop, we could incur additional costs, complaints and/or regulatory investigations or fines; we may have to stop using certain tools and vendors and make other operational changes, we may have to implement alternative data transfer mechanisms under the GDPR and/ or take additional compliance and operational measures; and/or it could otherwise affect the manner in which we provide our services, and could adversely affect our business, operations 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 or U.K. 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.

In recent years, U.S. and European lawmakers and regulators have also expressed concern over the use of third-party cookies, web beacons and similar technology. In particular, recent European court and regulator decisions are driving increased attention to cookies and tracking technologies. If the trend of increasing enforcement by European regulators of the strict approach to opt-in consent for all but essential use cases, as seen in recent guidance and decisions continues, this could lead to substantial costs, require significant systems changes, divert the attention of our technology personnel, adversely affect our margins, and subject us to additional liabilities. In light of the complex and evolving nature of EU, EU Member State and U.K. privacy laws on cookies and tracking technologies, there can be no assurances that we will be successful in our efforts to comply with such laws; violations of such laws could result in regulatory investigations, fines, orders to cease/ change our use of such technologies, as well as civil claims including class actions, and reputational damage.

Further, in the U.S., numerous state and federal laws, regulations, standards and other legal obligations, including consumer protection laws and regulations, which govern the collection, dissemination, use, access to, confidentiality, security and processing of personal information, including health-related information, could apply to our operations or the operations of our partners. In addition, we may obtain health information from third parties (including research institutions from which we obtain clinical trial data) that are subject to privacy and security requirements under HIPAA. Depending on the facts and circumstances, we could be subject to significant penalties if we violate HIPAA.

Certain states have also adopted data privacy and security laws and regulations that govern the privacy, processing and protection of health-related and other personal information. Such laws and regulations will be subject to interpretation by various courts and other governmental authorities, thus creating potentially complex compliance issues for us and our future customers and strategic partners. For example, the California Consumer Privacy Act of 2018 (“CCPA”) went into effect on January 1, 2020. The CCPA creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling certain personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that has increased the likelihood of, and risks associated with data breach litigation. Further, the California Privacy Rights Act (“CPRA”) generally went into effect on January 1, 2023, and significantly amends the CCPA. It imposes additional data protection obligations on covered businesses, including additional consumer rights processes, limitations on data uses, new audit requirements for higher risk data, and opt outs for certain uses of sensitive data. It also creates a new California data protection agency authorized to issue substantive regulations and could result in increased privacy and information security enforcement. Additional compliance investment and potential business process changes may also be required. Similar laws have passed in other states and are continuing to be proposed at the state and federal level, reflecting a trend toward more stringent privacy legislation in the U.S. The enactment of such laws could have potentially conflicting requirements that would make compliance challenging. In the event that we are subject to or affected by HIPAA, the CCPA, the CPRA or other domestic privacy and data protection laws, any liability from failure to comply with the requirements of these laws could adversely affect our financial condition.

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, the 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, the 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, such as applicable export controls, embargoes, economic, financial and trade sanctions laws and regulations, including those administered and enforced by the U.K., the U.S. and the EU (and its Member States), (collectively, the “Trade Controls”). These Trade Controls prohibit or restrict dealings relating to certain countries, regions or persons.

Compliance with Trade Controls, which are subject to frequent changes, may delay or hinder our business operations (particularly in respect of cross-border business), and, in some cases, prevent certain of our business operations altogether. It is

difficult for us to predict how Trade Controls will change in the future and the impact they may have on our business. For example, as stated above, a result of Russia's invasion of Ukraine, Trade Controls relating to Russia have been significantly expanded.

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, collaborators or other person who performs services on our behalf and, as a result, we could be subject to fines, penalties, or prosecution.

Our business and operations may suffer in the event of information technology system failures, cyberattacks or deficiencies in our cybersecurity.

We and our collaborators, CROs, service providers, and other contractors and consultants rely on information technology ("IT") systems and networks to process, transmit and store electronic information, including but not limited to intellectual property, confidential information, proprietary business information, preclinical and clinical trial data and personal information, and health-related information, in connection with our business activities (collectively, "Confidential Information"). Our IT systems and those of current and future third parties on which we rely may fail and are vulnerable to breakdown, breach, interruption or damage from cyber incidents, employee error or malfeasance, misconfigurations, "bugs" or other vulnerabilities, theft or misuse, sophisticated nation-state and nation-state-supported actors, unauthorized access, natural disasters, terrorism, war, telecommunication and electrical failures or other compromises. As use of digital technologies has increased, cyber incidents, including third parties gaining access to employee accounts using stolen or inferred credentials, computer malware (e.g. ransomware), viruses, spamming, social engineering or phishing attacks, denial-of-service attacks or other means, and deliberate attacks and attempts to gain unauthorized access to computer systems and networks, have increased in frequency, intensity, and sophistication. These threats pose a risk to the security of our and our collaborators', CROs', service providers', and other contractors' and consultants' systems and networks, and the confidentiality, availability and integrity of our Confidential Information. There can be no assurance that we will be successful in preventing cyberattacks or successfully mitigating their effects. There can also be no assurance that our or our collaborators', CROs', service providers', and other contractors' and consultants' cybersecurity risk management program and processes, including policies, controls or procedures, will be fully implemented, complied with or effective in protecting our systems, networks and Confidential Information.

The risk of a security breach or disruption, particularly through cyberattacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity, and sophistication of attempted attacks and intrusions from around the world have increased. In addition, varying parts of our workforce are currently working remotely on a part or full time basis. This could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions. We may not be able to anticipate all types of security threats, and we may not be able to implement preventive measures effective against all such security threats. The techniques used by cyber criminals change frequently, may not be recognized until launched, and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates, terrorist organizations or hostile foreign governments or agencies. We may also experience security incidents that may remain undetected for an extended period. Even if identified, we may be unable to adequately investigate or remediate incidents or breaches due to attackers increasingly using tools and techniques that are designed to circumvent controls, to avoid detection, and to remove or obfuscate forensic evidence. Similarly, there can be no assurance that our collaborators, CROs, service providers, and other contractors and consultants will be successful in protecting our clinical and other data that is stored on their systems. Any loss of clinical trial data from our completed or ongoing clinical trials for any of our product candidates could result in delays in our development and regulatory approval efforts and significantly increase our costs to recover or reproduce the data. We and certain of our service providers are from time to time subject to cyberattacks and security incidents. We have experienced and expect to continue to experience attempted cyberattacks on our IT networks, such as through phishing scams and ransomware. Although we do not believe that we have experienced any significant system failure, accident or cybersecurity incidents to date, we cannot guarantee that we will not experience such incidents in the future. Any adverse impact to the availability, integrity or confidentiality of our or third-party systems or Confidential Information can result in legal claims or proceedings (such as class actions), regulatory investigations and enforcement actions, fines and penalties, negative reputational impacts that cause us to lose existing or future customers, and/or significant incident response, system restoration or remediation and future compliance costs. Any or all of the foregoing could materially adversely affect our business, results of operations, and financial condition.

Any cyberattack that leads to unauthorized access, use, or disclosure of Confidential Information, data breach or destruction or loss of Confidential Information could result in a violation of applicable U.S. and international privacy, data protection and other laws and regulations, require us to notify affected individuals or supervisory authorities, subject us to litigation and governmental investigations, proceedings and regulatory actions by federal, state and local regulatory entities in the U.S. and by international regulatory entities, cause our exposure to material civil and/or criminal liability and cause us to breach our contractual obligations, which could result in significant legal and financial exposure and reputational damages. As cyber threats continue to evolve, we may be required to incur significant additional expenses in order to implement further data protection measures or to remediate any information security vulnerability. Further, our general liability insurance and corporate risk program may not cover all potential claims to which we are exposed and may not be adequate to indemnify us for all liability. There can be no assurance that the limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages as a result of the events referenced above. We also cannot be certain that our existing insurance coverage will continue to be available on acceptable terms or in amounts sufficient to cover the potentially significant losses that may result from a security incident or breach or that the insurer will not deny coverage wholly or in part, of any future claim. Accordingly, if our cybersecurity measures, and those of our service providers, fail to protect against unauthorized access, attacks and the mishandling of data by our employees and third-party service providers, then our business, financial condition, results of operations and prospects could be adversely affected.

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 or our partners 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, etigilimab or acumapimod is approved, we will face intense competition from a variety of businesses, including large, fully integrated pharmaceutical and biopharmaceutical companies in the U.S., 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 and UCB's anti-sclerostin antibody, romosozumab (Evenity), which was approved for osteoporosis in the U.S. in April 2019 and in December 2019 in Europe. In addition, Jiangsu Hengrui has commenced Phase 1 development of an anti-sclerostin antibody for osteoporosis in China, and Transcenta Holding has licensed the Chinese rights to the anti-sclerostin antibody blosozumab from Lilly and plans to develop it for osteoporosis. Baylor College of Medicine has conducted a Phase 1 open label trial of fresolimumab, a TGF-B inhibitor, in adult OI patients, and Sanofi is conducting a Phase 1 trial of SAR439459, a related TGF-B inhibitor, in adult OI patients. Amgen has also terminated a Phase 3 study and an open label extension study of denosumab (Prolia) an anti-resorptive agent in pediatric patients with OI.
- We consider alvelestat's current closest potential competitors for the treatment of severe AATD to be alpha-1- proteinase inhibitors that are administered intravenously in AAT augmentation therapy. Currently, there are four inhibitors on the market in the U.S. and the EU: Prolastin-C from Grifols, Aralast from Shire, Zemaira from CSL, and Glassia from Kamada. Kamada is also developing an inhaled version of augmentation therapy which is in Phase 3 and has a recombinant alpha-1 antitrypsin in early development. InhibRx (pending acquisition by Sanofi) has initiated a Phase 2 registrational trial of INBRX-101, a recombinant human alpha-1 antitrypsin Fc fusion protein (rhAAT-Fc) for replacement therapy. Apic Bio is in the early stages of developing a dual function vector (df-AAV) gene-therapy approach for AATD silencing the mutant Z-AAT protein and augmenting wildtype M-AAT production. Wave Life Sciences has initiated a Phase 1 study of RNA base-editing oligonucleotide (WVE-0006) to restore wild-type protein in lung and liver disease, a program that has been recently partnered with GSK. Intellia Therapeutics has initiated a Phase 1 study with a CRISPR/Cas9 -based insertion of normal SERPINA1 gene, targeting lung disease (NTLA-3001). Peak Bio acquired an oral NE inhibitor, PHP-303 from Ph Pharma in March 2022 and recently announced a merger with Akari Pharmaceuticals. Vertex has two small molecule corrector programs for AATD in Phase 1 trials following Phase 2 trials with two other molecules with the same mechanism of action that were discontinued due to toxicity and efficacy. Biomarin Pharmaceutical Inc. is in early stages of development of a small molecule corrector (BMN 349).

- There are no therapies with regulatory approval for Bronchiolitis Obliterans Syndrome (“BOS”) following SCT or lung transplant. We consider alvelestat’s closest potential competitors to be the Janus Kinase (JAK1) inhibitor, itacitinib, and JAK2 inhibitor, ruxolitinib, (Incyte Corporation) in Phase 1/Phase2 studies in lung transplant-associated and SCT-associated BOS, respectively; AI Therapeutics inhaled formulation of sirolimus (LAM-001) in Phase 1 for BOS in lung transplant; Isopogen allogeneic bone marrow derived Mesenchymal Stem Cells for Chronic Lung Allograft Dysfunction (CLAD) in Phase 1 (NCT02709343); and liposomal inhaled cyclosporin-A (Zambon) in Phase 2 in BOS following SCT and in Phase 3 global pivotal trials in BOS associated with lung transplant.
- We consider etigilimab’s current closest potential competitors to include other anti-TIGIT agents being developed by companies including Roche, Merck, iTeos and GSK, Beigene, Arcus/Gilead and Compugen amongst others. In addition, there are other combinations of existing cancer therapies available commercially for example, Yervoy and Opdivo and Opdivo or Keytruda in combination with chemotherapy agents. There are a number of bispecific antibodies with an anti-TIGIT arm in development including a Phase 3 program in NSCLC being developed by AstraZeneca. There are also a number of other agents in development to other immuno-oncology targets that could compete with an anti-TIGIT approach, for example anti-LAG3.
- 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 the treatment of COPD as well as a number of product candidates in development. We consider acumapimod’s current closest potential competitor for the treatment of AECOPD to be Verona’s nebulized and inhaled ensifentrine (RPL554), a PDE3 / PDE4 dual inhibitor that is currently being developed as a bronchodilator and anti-inflammatory agent for COPD, Asthma and Cystic Fibrosis patients. In 2022, Verona announced positive results (FEV1 and AECOPD exacerbation frequency) from two Phase 3 trials (ENHANCE-1 and ENHANCE-2) in COPD. The FDA has assigned a PDUFA target action date for ensifentrine of June 26, 2024. Pulmatrix has PUR1800, a narrow-spectrum kinase inhibitor (NSKI) that completed a Phase 1b trial in COPD. In addition to Pulmatrix, there are several compounds, which directly or indirectly target the p38 MAP Kinase pathway in clinical development by Poolbeg, Fulcrum, GEn1E Lifesciences, CervoMED, Kinarus, Neurokine, and Inovio, among others, for therapeutic indications outside the COPD setting.

We also anticipate that new companies will enter these markets in the future. If we, or our partners, successfully develop and commercialize any of setrusumab, alvelestat, etigilimab, or acumapimod, 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, 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 U.S. and EU and for alvelestat for the treatment of AATD in the U.S., but we may be unable to obtain orphan designation for alvelestat for AATD in the EU or for the treatment of BOS in the U.S. or EU, or any future product candidates. We may also 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.

Regulatory authorities in some jurisdictions, including the U.S., may designate biologics or drugs designed to address relatively small patient populations as “orphan drugs.”

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 U.S., or a patient population greater than 200,000 in the U.S. where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the U.S. In the EU, the European Commission grants orphan designation after receiving the opinion of the EMA’s Committee for Orphan Medicinal Products (“COMP”). In the EU, orphan designation is intended to promote the development of medicinal products that (1) are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the EU, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the EU to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected).

Post-Brexit, the U.K. has retained the EU Regulation which governs the designation of medicinal products as orphan drugs and which establishes incentives thereto (Regulation (EC) No. 141/2000) as part of U.K. law by virtue of the EU (Withdrawal) Act 2018, however any future changes to the legal requirements could lead to greater regulatory complexity and increased costs to our business.

There is no pre-MA orphan designation in Great Britain. Instead, the MHRA will review applications for orphan designation in parallel to the corresponding MAA. The criteria are essentially the same, but have been tailored for the market, i.e., the prevalence of the condition in Great Britain, rather than the EU, must not be more than five in 10,000. Should an orphan designation be granted, the period or market exclusivity will be set from the date of first approval of the product in Great Britain. If a medicinal product has been designated orphan in the EU under Regulation (EC) 141/2000, a Great Britain orphan MAA can be made under regulation 50G of the Human Medicines Regulation 2012 (as amended). A U.K.-wide orphan MAA can only be considered in the absence of an active EU orphan designation.

If a U.K.-wide orphan MA is granted and the medicinal product subsequently receives EU orphan designation, the MA holder would need to submit a variation to change this to a Great Britain orphan MA. In the U.S., 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 disease or condition 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. In the EU, orphan designation entitles a party to financial incentives such as reduction of fees or fee waivers, protocol assistance, and access to the centralized MA procedure. Upon grant of MA, orphan medical products are entitled to a ten year period of market exclusivity. This period can be extended by two years if studies in children are performed in accordance with a Pediatric Investigation Plan (“PIP”). This period may be reduced to six years if, at the end of the fifth year the orphan designation criteria are no longer met, including where it is shown that the drug is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, a MA may be granted to a similar product for the same indication at any time if (i) the second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior; (ii) the applicant consents to a second orphan medicinal product application; or (iii) the applicant cannot supply enough orphan medicinal product.

We have obtained orphan drug designation from the FDA and the European Commission for setrusumab for the treatment of OI (designated by the FDA as “human monoclonal antibody targeting human sclerostin” and designated by the European Commission as “recombinant humanised monoclonal IgG2 lambda antibody against human sclerostin”). Additionally, we have obtained orphan drug designation for alvelestat for the treatment of AATD from the FDA. We may also plan to seek orphan drug designation from the European Commission for alvelestat for the treatment of AATD or BOS and/or 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 U.S. may be unavailable if we seek approval for disease or condition broader than the orphan-designated disease or condition or may be lost in the U.S. 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 can be approved for the same condition. In addition, the FDA and foreign regulatory authorities can subsequently approve product candidates with the same active ingredients for the same condition if the FDA or the foreign regulatory authority 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.

Although we have obtained a rare pediatric disease designation for setrusumab, there is no guarantee that FDA approval of will result in issuance of a priority review voucher.

In 2012, Congress authorized the FDA to award priority review vouchers to sponsors of certain rare pediatric disease product applications. This program is designed to encourage development of new drug and biological products for prevention and treatment of certain rare pediatric diseases. Specifically, under this program, a sponsor who receives an approval for a drug or biologic for a “rare pediatric disease” that meets certain criteria may qualify for a voucher that can be redeemed to receive a priority review of a subsequent marketing application for a different product. The sponsor of a rare pediatric disease drug product receiving a priority review voucher may transfer (including by sale) the voucher to another sponsor. The voucher may be further transferred any number of times before the voucher is used, as long as the sponsor making the transfer has not yet submitted the application. The FDA may also revoke any priority review voucher if the rare pediatric disease drug for which the voucher was awarded is not marketed in the U.S. within one year following the date of approval.

We have obtained a rare pediatric disease designation for setrusumab for osteogenesis imperfecta, however, there is no guarantee that we will be able to obtain a priority review voucher, even if setrusumab is approved by the FDA. For example, the FDA may determine that an a BLA or NDA, even if ultimately approved, does not meet the eligibility criteria for a priority review voucher, including for the following reasons:

- the product no longer meets the definition of a rare pediatric disease;
- the product contains an active ingredient (including any ester or salt of the active ingredient) that has been previously approved in another marketing application;
- the application does not rely on clinical data derived from studies examining a pediatric population and dosages of the drug intended for that population;
- the application is approved for a different adult indication than the rare pediatric disease for which the product is designated.

Moreover, Congress included a sunset provision in the statute authorizing the rare pediatric disease priority review voucher program. Under the current statutory sunset provisions, after September 30, 2024, FDA may only award a voucher for an approved rare pediatric disease product application if the sponsor has rare pediatric disease designation for the product candidate, and that designation was granted by September 30, 2024. After September 30, 2026, FDA may not award any rare pediatric disease priority review vouchers.

A Fast Track Designation from the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.

The FDA has granted Fast Track designation for the investigation of alvelestat for the treatment of alpha-1-antitrypsin deficiency-associated lung disease. We intend to seek such designation for some or all of our other product candidates. The Fast Track program is intended to expedite or facilitate the process for reviewing new product candidates that meet certain criteria. Specifically, new drugs and biologic are eligible for Fast Track designation if they are intended, alone or in combination with one or more drugs or biologics, to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast Track designation applies to the combination of the product candidate and the specific indication for which it is being studied. The sponsor of a Fast Track product candidate has opportunities for more frequent interactions with the applicable FDA review team during product development and, once a BLA or NDA is submitted, the application may be eligible for priority review. An NDA or BLA submitted for a Fast Track product candidate may also be eligible for rolling review, where the FDA may consider for review sections of the NDA or BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA or BLA, the FDA agrees to accept sections of the NDA or BLA and

determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

The FDA has broad discretion whether or not to grant this designation. Even if we believe a particular product candidate is eligible for this designation, there is no certainty that the FDA would decide to grant it. Even if we do receive Fast Track Designation for any of our product candidates, such product candidates may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may also withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program. Furthermore, such a designation does not increase the likelihood that alvelestat or any other product candidate that may be granted Fast Track designation will receive regulatory approval in the U.S. Many product candidates that have received Fast Track Designation have ultimately failed to obtain approval.

We or our partners may seek and fail to obtain Breakthrough Therapy designation by the FDA for setrusumab, alvelestat or etigilimab or any future product candidates or access to the PRIME scheme by the EMA for alvelestat, etigilimab 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 I; organizational commitment involving senior managers; and eligibility for rolling review and priority review, if the relevant criteria are met.

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 and rescind the designation 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.

In November 2017, setrusumab was admitted to the PRIME scheme of the EMA. We may seek EMA PRIME designation or other designations, schemes or tools for other product candidates. In the EU, innovative products that target an unmet medical need and are expected to be of major public health interest may be eligible for a number of expedited development and review programs, such as the PRIME scheme, which provides incentives similar to the Breakthrough Therapy designation in the U.S. 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. The benefits of a PRIME designation include the appointment of a rapporteur before submission of a MAA, early dialogue and scientific advice at key development milestones, and the potential to qualify products for accelerated review earlier in the application process.

Even if we believe one of our product candidates is eligible for PRIME, the EMA may disagree and instead determine not to make such designation. The EMA PRIME scheme or other schemes, designations, or tools, even if obtained or used for any of our product candidates may not lead to a faster development, regulatory review or approval process compared to therapies considered for approval under conventional procedures and do not assure ultimate approval. In addition, even if one or more of our product candidates is eligible to the PRIME scheme, the EMA may later decide that such product candidates no longer meet the conditions for qualification or decide that the time period for review or approval will not be shortened.

Product developers that benefit from PRIME designation may be eligible for accelerated assessment (in 150 days instead of 210 days), which may be granted for medicinal products of major interest from a public health perspective or that target an unmet medical need, but this is not guaranteed.

The competent regulatory authorities in the EU have broad discretion whether to grant such an accelerated assessment, conditional MA or MA under exceptional circumstances, and, even if such assessment or authorization is granted, we may not experience a faster development process, review or authorization compared to conventional procedures. Moreover, the removal or threat of removal of such MAs may create uncertainty or delay in the clinical development of our product candidates and threaten the commercialization prospects of our products and product candidates, if approved. Such an occurrence could materially impact our business, financial condition and results of operations.

We intend to directly commercialize or co-commercialize our product candidates for rare diseases and to out-license or sell our other product candidates for further development and/or commercialization. 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 have partnered setrusumab in a global licensing transaction with Ultragenyx, under which we retained EU and U.K. commercial rights. We have entered into a global out-licensing agreement with Feng Biosciences for development and commercialization of navicixizumab. We have entered into a global out-licensing agreement with Reprono for development and commercialization of leflutrolole. We currently intend to commercialize setrusumab for children and adults with OI in the EU and U.K. We may seek to partner or commercialize our other product candidates based on the outcome of clinical trials, cost of the registrational trials and other strategic considerations.

We currently intend to enter into out-licensing or sales arrangements with pharmaceutical, biopharmaceutical or other partners for the continued development and commercialization of our non-core disease product candidate acumapimod and we may take the same approach for our other product candidates.

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 arrangements 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 U.S., 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 U.S., 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 U.S. 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 U.S. 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 U.K. and other countries outside of the U.S., 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 U.S., the reimbursement for our product candidates may be reduced compared with the U.S. and may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the U.S. 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 revenues from product sales will be compromised.

Even if the FDA, 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 U.S. may face competition sooner than anticipated.

In the U.S., 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.

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. 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 MA 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 our partners to develop and commercialize our licensed or partnered product candidates. If our partners do not secure adequate funding or satisfy their obligations under our agreements with them, or if they terminate our licenses, partnerships or collaborations with them, we may not be able to develop or commercialize our licensed or partnered product candidates as planned.

We have announced three out-licensing collaborations. On December 17, 2020, we announced a license and collaboration agreement with Ultragenyx, for setrusumab, a monoclonal antibody in clinical development for OI. Under the terms of the collaboration, Ultragenyx will lead future global development of setrusumab in both pediatric and adult patients. We granted Ultragenyx an exclusive license to develop and commercialize setrusumab in the U.S. and rest of the world, excluding Europe and the U.K. where we retain commercial rights. Under the terms of the agreement, Ultragenyx will pay up to \$254 million in additional development, regulatory and commercial milestones and tiered double digit percentage royalties to us on net sales outside of Europe and we will pay a fixed double digit percentage royalty to Ultragenyx on net sales in Europe. On January 13, 2020, we announced a global out-licensing agreement with Feng Biosciences (formerly OncXerna) for development and commercialization of navicixizumab. Under the terms of the agreement Feng Biosciences will pay up to \$300 million in future clinical, development and

commercial milestones and royalties ranging from the mid-single digit to sub-teen percentages on global annual net sales of navicixizumab, as well as a negotiated percentage of sublicensing revenues from certain sublicensees. In December 2023, we entered into an exclusive global license agreement with ReproNovo for the development and commercialization of leflutrolole, a non-steroidal aromatase inhibitor. Under the terms of the License Agreement, ReproNovo, a reproductive medicine company, is responsible for all future development and commercialization of leflutrolole. Mereo received an upfront payment and will be eligible to receive up to \$64.3 million in future clinical, regulatory and commercial milestones as well as tiered mid-single digit royalties on global annual net sales of leflutrolole. Our future plans may include entering into out-licensing or collaboration agreements on some or all of our other development programs.

We also have existing acquisition agreements with Novartis which we entered into in 2015 in respect of our purchase of setrusumab, leflutrolole and acumapimod, and an existing in-licensing agreement with AstraZeneca which we entered into in 2017 in respect of our exclusive license of alvelestat.

Our partners might not fulfill all of their obligations under these agreements, and, in certain circumstances, including our licensing agreement with AstraZeneca, they or we may terminate our partnerships with them. In either event, we may be unable to assume the development and commercialization responsibilities covered by these agreements or enter into alternative arrangements with a third-party to develop and commercialize product candidates. If a partner elected to promote alternative products and product candidates such as its own products and product candidates in preference to those licensed from us, is unable to secure adequate funding to develop our product candidates, does not devote an adequate amount of time and resources to our product candidates or is otherwise unsuccessful in its efforts with respect to our product candidates, the development and commercialization of product candidates covered by the agreements could be delayed or terminated and our business and financial condition could be materially and adversely affected. Accordingly, our ability to receive any revenue from the product candidates covered by these agreements is dependent on the efforts of our partners.

If a partner terminates or breaches its agreements with us, otherwise fails to complete its obligations in a timely manner or alleges that we have breached our contractual obligations under these agreements, the chances of successfully developing or commercializing product candidates under the collaboration could be materially and adversely affected. We could also become involved in disputes with a partner, which could lead to delays in or termination of our development and commercialization programs and time-consuming and expensive litigation or arbitration. Furthermore, termination of an agreement by a partner could have an adverse effect on the price of our ADSs.

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 planned and 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 GCP requirements, which are regulations and guidelines enforced by the FDA, the competent authorities of the EU member states, and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCP 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 GCP 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 GCP 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 CMC development requirements and we do not own facilities for manufacturing and testing of our product candidates. Instead, we rely on and expect to continue to rely on CMOs for the supply, testing and release of cGMP grade clinical trial materials, performance of process and product development activities to facilitate supply of 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 leflutrolole and certain transitional services. We have transitioned the clinical supply manufacture for these product candidates to CMOs while demonstrating the manufactured product is equivalent to the Novartis form. We have also contracted with CMOs for the clinical supply of etigilimab and alvelestat.

The facilities used to manufacture and test our product candidates must be approved by the FDA, 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 or similar foreign requirements for the manufacture of our product candidates. We aim to minimize this risk by entering into quality agreements, by auditing of the CMOs and by ongoing review of all activities linked to product manufacture. Due to this dependence on CMOs, we are potentially 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 it may delay ongoing clinical studies as 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, while we have limited direct control over the ability of our CMOs to maintain adequate quality control, quality assurance and qualified personnel, we aim to maintain control through the use of quality agreements and manufacturing supply agreements. If the FDA or the 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, recall 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, 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. Following the license of setrusumab to Ultragenyx, CMO capacity in relation to the manufacture of clinical trial and commercial supplies is a key focus and most likely means additional CMO capacity will be a future priority to secure sufficient supplies. If we or our partners were unable to find an acceptable CMO within a reasonable timeframe, our clinical trials could be delayed, or our commercial activities could be negatively impacted.

We rely on and will continue to rely on CMOs to purchase from third-party suppliers the raw materials meeting for our specifications that are 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.

We rely on our CMOs to conduct all product and process development activities necessary to support regulatory submissions. These activities are critical to the meeting the regulatory expectations and if these studies are not considered adequate by FDA, the EMA or comparable foreign regulatory authority then significant delays could be encountered as a result. This risk is mitigated by following all relevant guidance's and using staff knowledge and previous experience to guide the product and process development programs but is still a potential risk of regulatory non-compliance.

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 those entering late-stage development, will require substantial additional funds. We currently intend to enter into out-licensing or sales arrangements with pharmaceutical, biopharmaceutical or other partners for the continued development of our product candidates, acumapimod and leflutrolole, and we may take the same approach for other product candidates.

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 selected product candidates, we may have to reduce, delay, or terminate the development of such 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.

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 navicixizumab (which was licensed to Feng Biosciences (formerly OncXerna) in January 2020), and our etigilimab product candidate (solely owned by Mereo BioPharma 5 (formerly OncoMed)), patents and patent applications which cover our setrusumab, acumapimod, and leflutrolole product candidates acquired from Novartis and patents and patent applications which cover our alvelestat product candidate exclusively licensed (with the option to purchase) from AstraZeneca. The assignments of those patents and patent applications which we acquired from Novartis have been registered with the relevant authorities in key territories. The

patent and patent applications for setrusumab and leflutroazole are subject to a license agreement with Ultragenyx from January 2021 and a license agreement with ReproNovo from December 2023 respectively. 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 is issued 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 U.S., if third parties have filed such patent applications on or before March 15, 2013, the date on which the U.S. 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 U.S. 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 U.S., 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 U.S., U.K. 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 etigilimab in the treatment of cancer. 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 etigilimab 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. Regarding our anti-sclerostin antibody product candidate, setrusumab, we are aware of litigation involving patents owned by a third-party, OssiFi-Mab LLC (OMab), relating to methods of using sclerostin antagonists in combination with antiresorptive drugs to increase bone growth, bone formation, and/or bone density. Specifically, in the U.S., O Mab has asserted certain patents expiring in 2027 or 2028 against Amgen based on Amgen's commercialization of an anti-sclerostin antibody, Evenity®, for the treatment of osteoporosis in postmenopausal women at high risk for fracture; Amgen denies infringement and asserts the O Mab patents are invalid. In Europe, O Mab was granted two patents with related subject matter; the first patent has been revoked while the second has been opposed by Amgen, UCB, and two anonymous parties.

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 U.S. and abroad. We may be subject to a third party pre-issuance 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.

There is a risk that one or more third parties may choose to engage in litigation with us to enforce or to otherwise assert their patent rights against us. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that one or more of these patents is valid, enforceable, and infringed, in which case the owners of any such patents may be able to block our ability to commercialize a product candidate unless we obtain a license under the applicable patents, or until such patents expire. However, such a license may not be available on commercially reasonable terms or at all. 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 U.S. 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 U.S., Europe and elsewhere that is relevant to or necessary for the commercialization of our product candidates in any jurisdiction. For example, in the U.S., patent applications filed before November 29, 2000 and, upon request, certain patent applications filed after that date that will not be filed outside the U.S., remain confidential until those patent applications issue as patents. Patent applications in the U.S., 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 U.S, 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 licensors, including Novartis, AstraZeneca, and Ultragenyx 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 agreements with OncXerna and Ultragenyx 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 U.S. 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 business and operations may suffer, and proprietary information may be lost, in the event of information technology system failures, cyberattacks or deficiencies in our cybersecurity.

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 attack and damage from computer viruses and malware (e.g., ransomware), cybersecurity threats, unauthorized access, natural disasters, terrorism, war and telecommunications and electrical failures or breached due to employee error, malfeasance, or other disruptions. Attacks upon information technology systems are increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives and expertise. Furthermore, because the techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. We may also experience security breaches that may remain undetected for an extended period. Even if identified, we may be unable to adequately investigate or remediate incidents or breaches due to attackers increasingly using tools and techniques that are designed to circumvent controls, to avoid detection, and to remove or obfuscate forensic evidence.

We and certain of our service providers are from time to time subject to cyber security incidents. Although, to our knowledge, we have not experienced any significant system failure, accident or security breach to date, any such event 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.

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. We could also incur liability and the further development and commercialization of our product candidates could be delayed. In addition, we also rely on third parties to manufacture our product candidates, so similar events relating to their computer systems could also have a material adverse effect on our business. Further, our insurance coverage may not be sufficient to cover the financial, legal, business or reputational losses that may result from an interruption or breach of our systems.

In addition, in response to the COVID-19 pandemic, and continued hybrid working environment, varying parts of our workforce may work remotely on a part or full-time basis. This could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations or prospects.

Risks Related to our ADSs

The trading price of our ADSs may be volatile, and you could lose all or part of your investment.

The trading price of our ADSs is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their ADSs at or above the price paid for the ADSs. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this report, factors that are expected to affect the market price of our ADSs include:

- 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;
- the impact of public health epidemics, such as the COVID-19 pandemic, and government efforts to slow their spread;
- economic, public health, financial or geopolitical events that affect us or the financial markets generally, including the duration and severity of the impact of the COVID-19 pandemic, the conflicts between Ukraine and the Russian Federation, and Israel and Hamas and unexpected rises in inflation and interest rates;
- 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 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.

In the past in the U.S., 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 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.

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, or the Companies Act, and by our articles of association. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations.

The principal differences include the following:

- under English law, holders of ordinary shares generally have preemptive rights (in proportion to their existing holdings) in relation to ordinary shares or rights to subscribe for, or to convert securities into, ordinary shares proposed to be allotted for cash, 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. Under U.S. law, shareholders generally do not have preemptive rights unless specifically granted in the certificate of incorporation or otherwise;
- under English law and our articles of association, certain matters require the approval of 75% of the shareholders who vote (in person or by proxy) on the relevant resolution (or, on a poll, the approval of shareholders representing 75% of the ordinary shares voting (in person or by proxy)), including changes to our name, permitting us to issue new ordinary shares for cash without the shareholders' preemptive rights applying and amendments to the articles of association. Under U.S. law, generally only majority shareholder approval is required to amend the certificate of incorporation or to approve other significant matters;
- in the U.K., a takeover may be structured as takeover offers or as schemes of arrangement. Under English law, a bidder seeking to acquire a company by means of a takeover offer who has acquired or unconditionally contracted to acquire not less than 90% of the shares (not held by the bidder) to which the offer relates may complete a "squeeze out" on the same terms as the takeover offer to obtain 100% control of that company. Accordingly, acceptances in respect of 90% of our outstanding ordinary shares/ADSs will likely be a condition in any takeover offer to acquire us (albeit a condition that the bidder will typically reserve the right to waive down to anything above 50%), not 50% as is more common in tender offers for corporations organized under Delaware law. By contrast, a scheme of arrangement, the successful completion of which would result in a bidder obtaining 100% control of us, requires the approval of a majority of shareholders voting at the meeting and representing not less than 75% of the ordinary shares voting at the meeting;
- under English law and our articles of association, shareholders and other persons whom we know or have reasonable cause to believe are, or have been, interested in our shares may be required to disclose information regarding their interests in our shares upon our request, and if a person defaults in providing the required information our directors may take certain directions, including that the relevant shareholder will not be entitled to vote at general meetings, that dividends

in respect of the default shares will be retained and that no transfers of the default shares may be registered. Comparable provisions generally do not exist under U.S. law; and

- the quorum requirement for a shareholders' meeting is a minimum of two shareholders entitled to vote at the meeting and present in person or by proxy or, in the case of a shareholder which is a corporation, represented by a duly authorized representative. In addition, in accordance with the applicable Nasdaq rules, under the articles of association for a shareholders' meeting to be quorate at least 33 1/3 per cent. of the company's issued and outstanding ordinary shares must be present at such meeting, whether represented in person (including, in the case of a corporate member, by a duly authorized representative) or by a duly appointed proxy. Under U.S. law, a majority of the shares eligible to vote must generally be present (in person or by proxy) at a shareholders' meeting in order to constitute a quorum. The minimum number of shares required for a quorum can be reduced pursuant to a provision in a company's certificate of incorporation or bylaws, but typically not below one-third of the shares entitled to vote at the meeting.

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 ADSs could decline.

The trading market for our 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 ADSs or publishes incorrect or unfavorable research about our business, the price of our 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 ADSs, demand for ADSs 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 depository 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 depository 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 depository 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 depository. If a lawsuit is brought against us or the depository 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 depository 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.

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.

We are entitled to amend the deposit agreement and to change the rights of ADS holders under the terms of such agreement, or to terminate the deposit agreement, without the prior consent of the ADS holders.

We are entitled to amend the deposit agreement and to change the rights of the ADS holders under the terms of such agreement, without the prior consent of the ADS holders. We and the depositary may agree to amend the deposit agreement in any way we decide is necessary or advantageous to us or to the depositary. Amendments may reflect, among other things, operational changes in the ADS program, legal developments affecting ADSs or changes in the terms of our business relationship with the depositary. In the event that the terms of an amendment are materially disadvantageous to ADS holders, ADS holders will only receive 30 days' advance notice of the amendment, and no prior consent of the ADS holders is required under the deposit agreement. Furthermore, we may decide to direct the depositary to terminate the ADS facility at any time for any reason. For example, terminations may occur when we decide to list our ordinary shares on a non-U.S. securities exchange and determine not to continue to sponsor an ADS facility or when we become the subject of a takeover or a going-private transaction. If the ADS facility will terminate, ADS holders will receive at least 30 days' prior notice, but no prior consent is required from them. Under the circumstances that we decide to make an amendment to the deposit agreement that is disadvantageous to ADS holders or terminate the deposit agreement, the ADS holders may choose to sell their ADSs or surrender their ADSs and become direct holders of the underlying ordinary shares, but will have no right to any compensation whatsoever.

It may be difficult for you to bring any action or enforce any judgment obtained in the U.S. 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 U.S. In addition, several members of our board of directors (our "Board") are nationals and residents of countries, including the U.K., outside of the U.S. Most or all of the assets of these individuals are located outside the U.S. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the U.S. if you believe your rights have been infringed under the securities laws or otherwise. In addition, a U.K. 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 U.S. or any state thereof. A U.K. court may not allow you to bring an action against us or our directors based on the securities laws of the U.S.s or any state thereof.

Shareholders in countries other than the U.K. will suffer dilution if they are unable to participate in future preemptive 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 preemptive rights to subscribe on a pro rata basis in the issuance of new shares for cash. The exercise of those preemptive rights by certain shareholders not resident in the U.K. may be restricted by applicable law or practice in the U.K. and overseas jurisdictions. In particular, the exercise of preemptive rights by U.S. 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 preemptive rights to holders of ADSs unless certain conditions are met, including that the provision of such preemptive rights to the ADS holders is reasonably practicable. If no exemption applies and we determine not to register such offering, shareholders in the U.S. may not be able or permitted to exercise their preemptive rights. We are also permitted under English law to disapply preemptive 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.

Unlike in prior years, as of January 1, 2024, we are required to comply with the domestic reporting regime under the Exchange Act and will incur significant legal, accounting and other expenses, and our management will be required to devote substantial additional time to new compliance initiatives and corporate governance matters.

We determined at the end of our second fiscal quarter that, as of January 1, 2024, we no longer qualified as a “foreign private issuer” under the rules and regulations of the SEC. While we were a foreign private issuer, we were exempt from compliance with certain laws and regulations of the SEC, including the proxy rules, the short-swing profits recapture rules and certain governance requirements, such as independent director oversight of the nomination of directors and executive compensation. In addition, we were not required to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. companies registered under the Exchange Act and were not required to present our financial statements in accordance with U.S. GAAP. As a result of this determination, beginning on January 1, 2024, we were no longer entitled to “foreign private issuer” exemptions and we plan to report as a domestic U.S. filer, including filing annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statements under Section 14 of the Exchange Act. In addition, beginning January 1, 2024, our “insiders” are subject to the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act and will be no longer exempt from the requirements of Regulation FD promulgated by the SEC under the Exchange Act. Moreover, beginning January 1, 2024, we were no longer permitted to follow our home country rules in lieu of the corporate governance obligations imposed by Nasdaq, and will be required to comply with the governance practices required of U.S. domestic issuers.

The regulatory and compliance costs associated with the reporting and governance requirements applicable to U.S. domestic issuers may be significantly higher than the costs we previously incurred as a foreign private issuer. As a result, we expect that the loss of foreign private issuer status will increase our legal and financial compliance costs and will make some activities highly time consuming and costly. In addition, we need to further develop our reporting and compliance infrastructure and may face challenges in complying with the new requirements applicable to us.

We are an “emerging growth company,” and the reduced disclosure requirements applicable to emerging growth companies may make the ADSs less attractive to investors.

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As such, we are eligible to, and intend to, take advantage, of certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, such as not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002. These exemptions include:

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We expect to continue to take advantage of some or all of the available exemptions. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the date we became a public company, (b) in which we have total annual gross revenue of at least \$1.24 billion or (c) in which we are deemed to be a large accelerated filer, which requires the market value of our ADSs that are held by non-affiliates to exceed \$700 million as of the prior June 30th, and (2) the date on which we have issued more than \$1 billion in non-convertible debt during the prior three-year period.

We cannot predict whether investors will find the ADSs less attractive if we rely on these exemptions. If some investors find the ADSs less attractive as a result, there may be a less active trading market for the ADSs and the market price of the ADSs may be more volatile.

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. 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 have been 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 continue to 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. As discussed in Item 9A. Controls and Procedures, we have not identified any material weaknesses, however

if we do identify one or more material weaknesses in future, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

We may 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.

Although we believe we have been treated as a PFIC in the past, based on our gross income, the average value of our assets, including goodwill, and the nature of the current state of our business, we do not believe we were a PFIC for the year ended December 31, 2023. There can be no assurance regarding our PFIC status for any particular year in the future because PFIC status is factual in nature, depends upon factors not wholly within our control, generally cannot be determined until the close of the taxable year in question and is determined annually. Whether we will be a PFIC in the current or any future taxable year is uncertain because, among other things, we currently own a substantial amount of passive assets, including cash, and because the valuation of our assets that generate non-passive income for PFIC purposes, including our goodwill and other intangible assets, is uncertain and may vary substantially over time. In addition, the composition of our assets and income may vary substantially over time. The average quarterly value of our assets for purposes of determining our PFIC status for any taxable year (to the extent applicable) will generally be determined in part by reference to our market capitalization, which has fluctuated and may continue to fluctuate significantly over time. Accordingly, there can be no assurance that we will not be a PFIC in the current or for any future taxable year. In addition, we may, directly or indirectly, hold equity interests in other entities, including certain of our subsidiaries that are PFICs. 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, certain adverse U.S. federal income tax consequences could apply to such U.S. investor. We will provide the information necessary for a U.S. investor to make a qualified electing fund election with respect to us. 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 (including the potential implications of our prior PFIC status).

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Cybersecurity Risk Management and Strategy

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information.

We design and assess our program based on the U.K. Cyber Essentials and the National Institute of Standards and Technology Cybersecurity Framework (NIST CSF). This does not imply that we meet any particular technical standards, specifications, or requirements, only that we use these frameworks as a guide to help us identify, assess, and manage cybersecurity risks relevant to our business.

Our cybersecurity risk management program is integrated into our overall enterprise risk management program, and shares common methodologies, reporting channels and governance processes that apply across the enterprise risk management program to other legal, compliance, strategic, operational, and financial risk areas.

Our cybersecurity risk management program includes:

- **Identification and Reporting:** We have implemented a cross-functional approach to assessing, identifying and managing material cybersecurity threats and incidents to our critical systems, information and our enterprise information technology environment. Our program includes controls and procedures to identify, classify and escalate certain cybersecurity incidents to provide management visibility and obtain direction from management as to the public disclosure and reporting of material incidents in a timely manner.
- **Technical Safeguards:** We implement technical safeguards that are designed to protect our information systems from cybersecurity threats, including firewalls, intrusion prevention and detection systems, anti-malware functionality, and access controls, which are evaluated and improved through vulnerability assessments and cybersecurity threat intelligence.
- **Third Party Risk Management:** We use external service providers, where appropriate, to assess, test or otherwise assist with aspects of our security controls. We maintain a risk-based approach to identifying and overseeing material cybersecurity threats presented by third parties, including vendors, service providers, and other external users of our systems, as well as the systems of third parties that could adversely impact our business in the event of a material cybersecurity incident affecting those third party systems, including any service providers, suppliers, and vendors that have access to our critical systems and information.
- **Education and Training:** We provide annual cybersecurity awareness training and on-going phishing simulation testing for our employees, incident response personnel and senior management in order to communicate evolving information security policies, standards, processes and practices and to provide them with the tools to make them aware of processes on addressing cybersecurity threats.
- **Incident Response and Recovery Planning:** We maintain incident response, business continuity, and disaster recovery plans designed to address our response to a cybersecurity incident.

We have not identified any specific risks from known cybersecurity threats, including as a result of any prior cybersecurity incidents, that have materially affected or are reasonably likely to materially affect us, including our operations, business strategy, results of operations, or financial condition. For more information, see the section “Item 1A. Risk Factor—Risks Related to Healthcare Laws and Other Legal Compliance Matters—Our business and operations may suffer in the event of information technology system failures, cyberattacks or deficiencies in our cybersecurity.”

Cybersecurity Governance

Our Board considers cybersecurity risk as part of its risk oversight function and has delegated to the audit and risk committee oversight of cybersecurity and other information technology risks. The audit and risk committee oversees management’s implementation of our cybersecurity risk management program.

Material cybersecurity risks are identified by members of our team. Our Head of IT is primarily responsible for managing our cybersecurity risk assessment processes, including those described in “Cybersecurity Risk Management and Strategy” above, our security controls and our response to cybersecurity incidents, with assistance from third party service providers.

The audit and risk committee receives periodic reports and briefings from management on our cybersecurity risks. In addition, management updates the audit and risk committee, as necessary, regarding any material cybersecurity incidents, as well as any incidents with lesser impact potential. The audit and risk committee reports to the full Board regarding its activities, including those related to cybersecurity.

Our management team supervises efforts to prevent, detect, mitigate, and remediate cybersecurity risks and incidents through various means, which may include briefings from internal IT personnel; threat intelligence and other information obtained from governmental, public or private sources, including third party service providers engaged by us; and alerts and reports produced by security tools deployed in the information technology environment.

Item 2. Properties

Mereo’s principal office is located at 4th Floor, One Cavendish Place, London W1G 0QF, United Kingdom, where Mereo leases approximately 7,400 square feet of office space. Mereo leases this office space under a lease that terminates on June 24, 2026.

Item 3. Legal Proceedings

As of December 31, 2023, we were not a party to any material legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

General Market Information

Our ordinary shares, par value £0.003 per share, are not publicly traded. Our American Depositary Shares, or ADSs, each represent five ordinary shares of Mereo BioPharma Group plc and began trading on The Nasdaq Global Select Market on April 24, 2019 under the symbol "MREO." Prior to that date, there was no public trading market for our ADSs or our ordinary shares. On May 3, 2023, we transferred the listing of our ADSs to the Nasdaq Capital Market.

Holder of Ordinary Shares

As of December 31, 2023, assuming that all of our ordinary shares represented by ADSs are held by residents of the U.S., including ADSs held by the entities set forth in Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, and excluding certain other holders that we know to be non-residents of the U.S., we estimate that approximately 97% of our outstanding ordinary shares (including ordinary shares underlying ADSs) were held in the U.S. The number of record holders in the U.S. is not representative of the number of beneficial holders nor is it representative of where such beneficial holders are resident since many of these shares were held by brokers or other nominees.

Dividend Distribution Policy

Mereo has never paid or declared any cash dividends on its ordinary shares, and does not anticipate paying any cash dividends on its ordinary shares in the foreseeable future. Mereo intends to retain all available funds and any future earnings to fund the development and expansion of its business. Under English law, among other things, Mereo may only pay dividends if it has sufficient distributable reserves (on a non-consolidated basis), which are calculated as Mereo's accumulated realized profits that have not been previously distributed or capitalized less its accumulated realized losses.

Purchases of Equity Securities by the Issuer

None.

Recent Sale of Unregistered Securities and Use of Proceeds

None.

Fourth Quarter Share Repurchases

There was no share repurchase activity in the Company's fourth quarter of 2023.

Item 6. [Reserved]

Item 7. 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 in conjunction with our consolidated financial statements and the related notes to those statements included elsewhere in this Annual Report on Form 10-K. In addition to our historical consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, beliefs and expectations. Our actual results and the timing of events could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in Part I, Item 1A. “Risk Factors.”

Overview

We are a biopharmaceutical company focused on the development of innovative therapeutics for rare diseases. We have developed a portfolio of late-stage clinical product candidates. Our strategy is to become a leading biopharmaceutical company developing innovative therapeutics that aim to improve outcomes for patients with rare diseases.

Our two rare disease product candidates are setrusumab for the treatment of osteogenesis imperfecta (OI) and alvelestat primarily for the treatment of severe alpha-1 antitrypsin deficiency-associated lung disease (AATD-LD). In addition to the rare disease programs, we have two oncology product candidates, etigilimab (an anti-TIGIT antibody) for the treatment of advanced solid tumors and navicixizumab (out-licensed to Feng Biosciences) for the treatment of late line ovarian cancer. Acumapimod is a p38 MAP kinase inhibitor therapy for treatment during severe acute exacerbations of chronic obstructive pulmonary disease (“AECOPD”). In December 2023, we entered into an exclusive global license agreement with ReproNovo for the development and commercialization of leflutrolole, a non-steroidal aromatase inhibitor.

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 successful development and eventual commercialization of our product candidates either directly or with partners, if approved. Since our inception, we have incurred significant operating losses. 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 product candidates and seek regulatory approval. If approved, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales, and distribution.

We believe that our existing cash and cash equivalents will be sufficient to enable us to fund our operating expenses and capital expenditure requirements into 2026 at which point we will require additional capital.

We are organized into a single operating 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.

Financial Operations Overview

Revenue

The Company’s ordinary business activities are the development of product candidates to key clinical milestones and either strategically partnering them or further developing such product candidates through regulatory approval and potentially commercialization. The Company may enter into a range of different agreements with third parties, including, but not limited to: (i) licensing agreements where the global rights to a product candidate are licensed to a partner; and (ii) collaboration agreements where rights to a product candidate are licensed to a partner but the Company retains certain rights, for example to further develop or commercialize the product candidate in specified geographical territories. Under both licensing and collaboration agreements, rights to product candidates are provided to a partner typically in exchange for consideration in the form of upfront payments and/or development, regulatory, commercial or other similar milestones, and royalties on commercial sales, should regulatory approval be obtained for the product candidates. Where the Company has performed significant development activities for its product candidates, income from agreements with third parties are considered to be proceeds derived from the Company’s ordinary activities and therefore represent revenue.

Revenue includes income from licensing and collaboration agreements. Consideration received up front is recognized at the point in time in which the right to use a license or intellectual property is transferred. Income from development, regulatory, commercial or similar milestones is recognized when considered highly probable that a significant reversal of revenue generated will not occur.

We do not currently have any approved product candidates. Accordingly, we have not generated any commercial sales revenue during the period. In the future, we expect to be able to generate revenues if we are able to obtain regulatory approval and commercialize one or more of our product candidates.

Payments to third parties arising as a direct consequence of the revenue recognized are recorded within cost of revenue in the Company's consolidated statements of operations and comprehensive loss. The costs recognized under cost of revenue in the year ended December 31, 2023 and December 31, 2022 are the payments that we are obligated to pay to Novartis under the 2015 asset purchase agreements. In 2015, when we purchased acumapimod, leflutrolole and setrusumab from Novartis, we agreed to pay Novartis if certain events occurred in relation to these compounds. The events that warrant a payment to Novartis are sales related or when a change in control occurs. When it is probable that either of these events will occur, revenue is recognized, and the corresponding payment obligation to Novartis is recognized within Cost of revenue.

Research and development ("R&D") expenses

Research and development expenses include:

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

Intellectual property costs incurred on each drug candidate and costs associated with pre-commercial activities to support pricing and reimbursement by health technology assessment ("HTA") authorities and payor decision-makers in Europe are excluded from R&D expenses and are recognized within General and administrative expenses. 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. As we advance the clinical development of our product candidates, we expect that our research and development expense will continue to include costs of inputting into development, regulatory and manufacturing plans with our partner, Ultragenyx, for setrusumab; activities associated with preparation of alvelestat for the Phase 3 study, including CMC and drug formulation, activities associated with validation of the patient reported outcome (PRO) and additional regulatory interactions; and the close-out of the Phase 1b portion of the Phase 1b/2 basket study for etigilimab.

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 its 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-core product candidates and performance of our strategic partners under these arrangements;
- the sale, if any, of one or more of our non-core 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 that 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, professional services fees for auditing, tax and general legal services, intellectual property costs, pre-commercial activities, costs related to our requirements of being a public company listed on Nasdaq, and costs incurred relating to the issue of equity to the extent not capitalized.

Interest income

Interest income comprises interest received on cash and short term deposits.

Interest expense

Interest expense principally comprises interest on convertible loan notes, deferred consideration and bank charges. For further information on the terms of our convertible loan notes see “—Liquidity and Capital Resources—Indebtedness”.

Changes in the fair value of financial instruments

The fair value changes in financial instruments are recognized in the statement of comprehensive loss.

Foreign currency transaction gain/(loss)

Our condensed consolidated financial statements are presented in U.S dollars. We initially record transactions in foreign currencies at the rate prevailing on the date the transaction first qualifies for recognition. Foreign currency transaction gain/(loss) consists of the difference arising on settlement or translation of transactions denominated in currencies other than the functional currency of the transacting foreign entity, which are primarily held in U.S. dollars and British pound sterling.

Other income

Other income consists of income that is derived from a third party which is not a customer and does not fall under the scope of ASC Topic 606, Revenue from Contracts with Customers (“ASC 606”).

Benefit from research and development tax credits

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 operating losses since formation. As of December 31, 2023 and 2022, we had cumulative carry-forward U.K. tax losses of \$30.6 million and \$28.7 million, respectfully. 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 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. To date, a cash rebate of up to 33.35% of eligible R&D expenditure has been available, but the cash rebate has reduced to a maximum of 27% for R&D intensive companies where at least 40% of their total expenditure is on qualifying R&D, or 18.6% of eligible R&D expenditure for other companies with effect from April 1, 2023 pursuant to changes made by the Finance Act 2023. Certain subcontracted qualifying research expenditures are eligible for a cash rebate, though the rate of the cash rebate has reduced with effect from April 1, 2023 from up to 21.67% of the subcontracted expenditures to 17.53% for R&D intensive companies or 12.09% for other companies. The difference in cash rebate for qualifying subcontracted expenditure vs other qualifying expenditure is due to a statutory restriction of 65% being applied to unconnected qualifying subcontracted expenditure, thus restricting the benefit available. Qualifying expenditures largely comprise employment costs for research staff, subcontracted CRO and CMO costs, consumables and certain internal overhead cost incurred as part of research projects. 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 following election into the regime. 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.

Income tax benefit

We operate in the U.K. and in the U.S. and are subject to corporate taxation in those countries. We have generated losses since inception and have therefore not paid U.K. corporation tax except for in 2021. The income tax benefit included in the consolidated statements of operations and comprehensive loss represents tax refunds in respect of income taxes paid in 2021.

The U.K. corporation tax rate applied for 2023 was 23.52% (2022: 19.0%), which results from applying the enacted statutory rate of 19% from January 1, 2023 through April 1, 2023, and 25% for the remainder of 2023. U.K. deferred tax assets and liabilities have been measured at a rate of 25%. The U.S. federal income tax rate is 21%.

As of December 31, 2023, the Company had U.K. net operating loss carryforwards of \$30.6 million, that can be carried forward indefinitely. The Company had U.S. federal tax losses to be carried forward of approximately \$66.2 million of which \$18.2 million can be carried forward indefinitely and \$48.0 million which will begin to expire in 2024. The Company also had \$14.0 million of U.S. federal research and development (“R&D”) tax credits that begin to expire in 2024 and U.S. state tax losses to be carried forward of less than \$0.1 million which begin to expire in 2027. The Company also had less than \$0.1 million of state R&D tax credits that do not have an expiration date.

Results of Operations

The following table sets forth Mereo's results of operations for the years ended December 31, 2023 and 2022.

	<u>Year ended December 31,</u>		<u>Change</u>	
	<u>2023</u>	<u>2022</u>	<u>(\$'000)</u>	<u>%</u>
	<u>(\$'000)</u>	<u>(\$'000)</u>	<u>(\$'000)</u>	
Revenue	10,000	—	10,000	*
Operating expenses:				
Cost of revenue	(2,574)	1,146	(3,720)	*
Research and development	(17,418)	(29,465)	12,047	(41%)
General and administrative	(18,424)	(26,107)	7,683	(29%)
Loss from operations	(28,416)	(54,426)	26,010	(48%)
Other income/(expenses)				
Interest income	2,131	840	1,291	154%
Interest expense	(2,881)	(4,175)	1,294	(31%)
Changes in the fair value of financial instruments	245	9,286	(9,041)	(97%)
Foreign currency transaction (loss)/gain, net	(2,347)	2,723	(5,070)	*
Other (expenses)/income, net	(10)	1,086	(1,096)	(101%)
Benefit from research and development tax credit	1,280	1,728	(448)	(26%)
Net loss before income tax	(29,998)	(42,938)	12,940	(30%)
Income tax benefit	532	718	(186)	(26%)
Net loss	(29,466)	(42,220)	12,754	(30%)
Other comprehensive income/(loss) – Foreign currency transaction adjustments, net of tax	4,202	(10,660)	14,862	*
Total comprehensive loss	(25,264)	(52,880)	27,616	*

* Percentage change not meaningful

Comparison of Years Ended December 31, 2023 and 2022

Revenue

Revenue of \$10.0 million for the year ended December 31, 2023 comprised a one-time milestone payment of \$9.0 million resulting from the achievement of a clinical milestone on setrusumab by Ultragenyx and a \$1.0 million up-front payment from our global license agreement with ReproNovo for the development and commercialization of leflutrolole. No revenue was recognized for the year ended December 31, 2022.

Cost of revenue

Cost of revenue for the year ended December 31, 2023 was \$2.6 million compared to a credit of \$1.1 million for the year ended December 31, 2022. Cost of revenue in 2023 represents amounts payable pursuant to our 2015 agreement with Novartis, under which the Company pays a percentage of proceeds resulting from milestone revenue received, subject to certain deductions.

In 2021, we received a \$50.0 million upfront payment from Ultragenyx and recognized cost of revenue of \$13.3 million reflecting the Company's obligation under our 2015 agreement with Novartis. Pursuant to this agreement, \$10.0 million was paid in cash and \$3.3 million was withheld and recognized as a deferred liability in other current liabilities, reflecting anticipated future costs to be incurred which are allowable deductions from amounts owed under the agreement. As these costs were subsequently incurred and recognized in research and development expenses or general and administrative costs, the liability was discharged and released through cost of revenue. In 2022, \$1.1 million of this liability was discharged and accordingly recognized as a credit to cost of revenue.

Research and development (“R&D”) Expenses

The following table sets forth our R&D expenses by product development program for the years ended December 31, 2023 and 2022.

	<u>Year ended December 31,</u>		<u>Change</u>	
	<u>2023</u>	<u>2022</u>	<u>(\$'000)</u>	<u>%</u>
Setrusumab (BPS-804/UX143)	3,157	2,443	714	29%
Alvelestat (MPH-966)	6,730	6,899	(169)	(2%)
Etigilimab (MPH-313)	7,263	19,620	(12,357)	(63%)
Leflurozole (BGS-649)	114	71	43	61%
Acumapimod (BCT-197)	28	64	(36)	(56%)
Other	126	368	(242)	(66%)
Total R&D expenses	<u>17,418</u>	<u>29,465</u>	<u>(12,047)</u>	<u>(41%)</u>

Total R&D expenses decreased by \$12.0 million, or 41%, from \$29.5 million in 2022 to \$17.4 million in 2023.

The decrease was primarily due to a \$12.4 million reduction in R&D expenses for etigilimab, partially offset by an increase of \$0.7 million in expenses for setrusumab.

The reduction in etigilimab expenses was primarily due to the winding down and completion of the open label Phase 1b/2 basket study in combination with an anti-PD-1 in a range of tumor types. Program expenses for setrusumab are in relation to ongoing activities in Europe, and input into development, regulatory and manufacturing plans with our partner, Ultragenyx, as the global development of the program is funded by Ultragenyx pursuant to our license and collaboration agreement. Program expenses for alvelestat primarily include the preparatory work for the Phase 3 study, including CMC and drug formulation activities, SGRQ validation activities and regulatory interactions.

General and administrative expenses

General and administrative expenses decreased by \$7.7 million, or 29%, from \$26.1 million in 2022 to \$18.4 million in 2023.

The decrease is primarily related to overall reductions in staff costs, professional fees and corporate costs of \$7.1 million, in addition to \$3.6 million received from our depository to reimburse certain expenses incurred by us in respect of our ADR program in the current and prior years and \$2.0 million received under a claim on our Directors and Officers insurance policy to reimburse us for certain legal and professional costs incurred in prior years.

General and administrative expenses included \$2.7 million (2022: \$2.6 million) related to pre-commercial activities, including those to support pricing and reimbursement by HTA authorities and payor decision-makers in Europe.

Interest income and expense

Total interest expense decreased from \$4.2 million in 2022 to \$2.9 million in 2023. This decrease is primarily due to the significantly lower average balance of convertible loan notes outstanding in 2023 compared to 2022. This reduction was due to the conversion and repayment of the Private Placement Loan Notes between June and August of 2023, as well as a partial conversion in July 2022.

Total interest income increased from \$0.8 million in 2022 to \$2.1 million in 2023. The increase is related to higher interest rates on cash and cash equivalents.

Changes in the fair value of financial instruments

The total change in fair value of financial instruments for 2023 was a gain of \$0.2 million, a decrease of \$9.0 million compared to an unrealized gain of \$9.3 million in 2022. The unrealized gain in 2023 was due to the expiry of the Private Placement warrants, offset by an unrealized loss on the Bank loan warrants as a result of an increase in the market price of our ADSs. The unrealized gain in 2022 primarily resulted from our Private Placement warrants driven, by a decline in the market price of our ADSs.

Foreign currency transaction gain/(loss)

The net foreign exchange loss for 2023 was \$2.3 million compared to a gain of \$2.7 million in 2022. The net foreign exchange loss is primarily related to impact of the strengthening of the pound sterling when translating foreign currency balances, primarily denominated in U.S. dollars.

Other income

Less than \$0.1 million of other expenses were recognized in 2023. In 2022, \$1.1 million was recognized as net proceeds from Feng Biosciences under the global license agreement for navicixizumab.

Benefit from research and development tax credit

The benefit from research and development tax credits decreased from \$1.7 million in 2022 to \$1.3 million in 2023. The income tax benefit represents eligible cash rebates paid or receivable from the tax authorities in the jurisdictions within which we operate for eligible types of research and development activities and associated expenditure (the “R&D tax credit”).

Income tax benefit

The income tax benefit in both periods represents income taxes paid in prior years for which a carryback claim has been made to offset against taxable income in the prior year.

Other comprehensive loss – Foreign currency translation adjustments

The foreign currency translation adjustment for the year ended December 31, 2023 was a credit \$4.2 million compared to \$10.7 million for the year ended December 31, 2022. The \$14.9 million change is primarily related to the strengthening of the pound sterling when translating balances from our pound sterling functional currency into our U.S. dollar reporting currency.

Liquidity and Capital Resources

Overview

Under the current business plan and cash flow forecasts, and in consideration of our ongoing research and development efforts and our general corporate funding requirements, we anticipate that our current on-hand cash resources will extend into 2026. However, we will need additional external funding to complete our development plans and potentially commercialize selected rare disease products. We plan to fund our operations through cash on hand and a combination of non-dilutive funding sources, public or private equity or debt financings or other sources.

We do not currently have any approved product candidates and as a result, have not generated any revenue from product sales. As a result, to date, we have financed our operations primarily through the issuances of our equity securities, convertible debt and warrants. Through these offerings, we raised approximately \$209 million, including \$12.0 million raised in July 2023 through an “at-the-market” offering pursuant to our Open Market Sale Agreement with Jefferies LLC.

We have also received payments under various license and collaboration agreements, including:

- An upfront payment of \$50.0 million under the license and collaboration agreement with Ultragenyx for setrusumab in 2021 and a further milestone payment of \$9.0 million in July 2023.
- An upfront payment of \$4.0 million under the license and collaboration agreement with Feng Biosciences (formerly OncXerna) for navicixizumab in 2020 and a further milestone payment of \$2.0 million in 2022.
- An upfront payment of \$1.0 million under the global license agreement with ReproNovo for leflutrolole in December 2023.

Contractual Obligations

As further described under “Item 1. Business-Material Agreements-Novartis Agreements” and “Item 1. Business-Material Agreements-Licensing Agreement with AstraZeneca,” under various agreements with Novartis and AstraZeneca, Mereo has agreed to make milestone payments and pay royalties. The amount, timing, and likelihood of such payments are not known and will remain uncertain for the foreseeable future.

In addition, Mereo enters into contracts in the ordinary course of business with CROs, CMOs, and other vendors to assist in the performance of its research and development activities and other services and products for operating purposes. The contracts with CROs generally provide for termination on notice, and therefore are cancelable contracts. We have manufacturing commitments with CMOs of \$4.2 million as of December 31, 2023.

Cash Flows

Comparison of Years Ended December 31, 2023 and 2022

The table below summarizes our cash flows (used in) from operating, investing and financing activities for the years ended December 31, 2023 and 2022.

	Year Ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Net cash used in operating activities	(21,132)	(48,821)
Net cash (used in) provided by investing activities	(419)	1,987
Net cash provided by financing activities	7,973	200
Effect of exchange rate changes	2,818	(12,582)
Decrease in cash and cash equivalents	(10,761)	(59,216)

Operating Activities

Net cash used in operating activities for the year ended December 31, 2023 was \$ 21.1 million, a decrease of \$27.7 million from \$48.8 million in 2022. The decrease was primarily driven by net cash receipts of \$10.0 million for milestone payments received from Ultragenyx and ReproNovo, reductions of \$12.0 million in R&D expenses and \$7.7 million in administrative expenses, and R&D tax credits and income tax refunds received of \$3.1 million compared to a payment made of \$1.9 million in the year ended December 31, 2022.

Investing Activities

Net cash used in investing activities for the year ended December 31, 2023 was a \$0.4 million, a decrease from a cash inflow of \$2.0 million in 2022. The decrease was primarily driven by payments to acquire intangible assets and receipt of a non-recurring milestone payment from Feng Biosciences (formerly OncXerna) in 2022 under the licensing arrangement for navicixizumab.

Financing Activities

Net cash provided by financing activities for the year ended December 31, 2023 was \$8.0 million, an increase of \$7.8 million, compared to \$0.2 million in 2022. This increase is primarily due to \$11.1 million of net proceeds from a share issuance through an "at-the-market" offering in July 2023, partially offset by payments of \$3.2 million principal following the modification and redemption of convertible loan notes.

Operating and Capital Expenditure Requirements

As of December 31, 2023, we had an accumulated deficit of \$419.6 million. We expect to continue to report 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 "Item 1A. 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 to continue to incur expenses in connection with our ongoing development activities related to our product candidates, our outsourced manufacturing activities and other associated costs including the management of our intellectual property portfolio. We also expect to continue to incur costs associated with operating as a U.S. public company listed on Nasdaq and as a domestic registrant.

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 clinical, scientific, operational, financial, legal 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; or
- 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 and cash equivalents will enable us to fund our currently committed clinical trials, operating expenses and capital expenditure requirements into 2026. 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 for our activities related to our ongoing collaboration with Ultragenyx for setrusumab for the treatment of adults and children with OI; and potential future clinical trials for alvelestat in AATD and other potential indications;
- 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, life cycle management 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 performance of our collaborators and partners under the existing agreements on setrusumab, navicixizumab and, leflutrolole;
- 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 Mereo's license and option agreement with AstraZeneca; and
- tax liabilities or other assessments and our ability to claim R&D tax credits or other reliefs.

Our revenues, if any, will be derived from development milestones or 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. 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.

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.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, Shareholders' ownership interests may be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a shareholder. If we are unable to raise additional funds through partnerships, debt or equity 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

Former Credit Facility

As of December 31, 2023, the former lenders have warrants outstanding to purchase a total of 1,243,908 ordinary shares at an exercise price of £2.95 per share (\$3.76 per share), exercisable until August 2027, and a total of 1,234,908 ordinary shares at an exercise price of \$0.4144 per share, exercisable until the period August 2027 to October 2028.

Novartis Notes

On February 10, 2020, we entered into a \$4.9 million (£3.8 million) convertible loan note instrument relating to the issue of 3,841,479 Novartis Loan Note. The Novartis Loan Note was convertible at any time at a fixed price of £0.265 (\$0.337) per ordinary share until February 10, 2023. In addition, on February 10, 2020, in connection with the Novartis Loan Note, we entered into a warrant instrument with Novartis to issue 1,449,614 ordinary shares at an exercise price of £0.265 (\$0.037) per ordinary share. These warrants are exercisable until February 10, 2025.

On February 10, 2023, we amended the Novartis Loan Note, extending the maturity date to February 10, 2025 and increasing the interest rate to 9%, with all other terms remaining unchanged. Pursuant to the amendment and a new warrant instrument, interest accrued to the amendment date was paid in cash, and warrants to purchase 2,000,000 ordinary shares at an exercise price of £0.150 (\$0.191) per ordinary share were issued and are exercisable until February 10, 2028.

Contingent Value Rights (“CVR”) arrangement

As a consequence of the License Agreement with Feng Biosciences (formerly OncXerna), and in accordance with the terms and conditions of the Contingent Value Rights Agreement for former stockholders of Mereo BioPharma 5 (formerly OncoMed), dated April 23, 2019, by and among Mereo and Computershare Inc., as rights agent, (the Mereo “CVR Agreement”), holders of “CVRs” pursuant to the CVR Agreement will be entitled to receive certain eligible cash milestone payments made to Mereo under the License Agreement relating to Navi. The receipt of the upfront milestone payment of \$4.0 million by us in January 2020 resulted in a payment to CVR holders of approximately 1.2 cents per CVR, a total of approximately \$0.5 million (after deductions of costs, charges and expenditures). Future milestone payments occurring prior to the fifth anniversary of the closing of the Merger, April 23, 2024, 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.

We account for the CVR arrangement as contingent consideration at fair value. As of December 31, 2023, the fair value of the contingent consideration is estimated to be nil. The estimated contingent consideration payable is based on a risk-adjusted, probability-based scenario. Under this approach, the likelihood of future payments being made to the former shareholders of Mereo BioPharma 5 under the CVR arrangement is considered. As the CVR Agreement will expire on April 23, 2024, it is unlikely the estimate will materially change in the future.

Critical Accounting Estimates

Our consolidated financial statements are prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. On an ongoing basis, we evaluate our accounting estimates based on historical experience and on

various other assumptions that we believe are reasonable under the circumstances. The actual impact on our financial performance could differ from these estimates under different assumptions or conditions.

An accounting estimate is considered critical if both (i) the nature of the estimates or assumptions is material due to the levels of subjectivity and judgment involved, and (ii) the impact within a reasonable range of outcomes of the estimates and assumptions is material to our consolidated financial statements. We believe that there are no estimates and assumptions made in our consolidated financial statements that rise to this level. For further information on all of our significant accounting policies, see Note 2 — Summary of Significant Accounting Policies in the accompanying notes to the consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

Item 7A. 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

As of December 31, 2023, we held cash and cash equivalents of \$57.4 million. Our exposure to interest rate sensitivity is impacted by changes in the underlying U.S. and U.K. bank interest rates. 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. Interest payable on our convertible loan notes is fixed. We have not entered into investments for trading or speculative purposes. Due to the conservative nature of our investment portfolio, which is predicated on capital preservation of investments with short-term maturities, we do not believe an immediate one percentage point change in interest rates would have a material effect on the value of our cash and cash equivalents, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates.

Foreign Currency Risk

We currently maintain the consolidated financial statements of the Company in pounds sterling, but for financial reporting purposes our consolidated financial statements have been presented in U.S. dollars, the reporting currency. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at rates prevailing at the date of the transaction. Exchange gains or losses arising from foreign currency transactions are included in the consolidated statements of operations and comprehensive loss, as foreign currency transaction gain/(loss). The financial statement entities are translated from their functional currency into the reporting currency as follows: assets and liabilities are translated at the exchange rates at the balance sheet dates, expenses are translated at the average exchange rates for the relevant period and shareholders' equity is translated based on historical exchange rates. Translation adjustments are not included in determining net loss but are included as a foreign exchange adjustment to the comprehensive loss, a component of the shareholder equity. For the year ended December 31, 2023, \$4.2 million of unrealized loss on foreign currency translation was included in other comprehensive loss compared to an unrealized loss of \$10.7 million for the year ended December 31, 2022.

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 short-term deposits in U.S. dollars to cover anticipated forward commitments, to provide a natural hedge against the impact of foreign exchange rate movements, but there can be no assurance that we will be fully protected against material foreign currency fluctuations.

Inflation Risk

Inflation may generally affect us by increasing our personnel costs, research and development expenses and general operating expenses. While we have experienced increased operating expenses in recent periods, which we believe are due in part to the recent growth in inflation, we do not believe that inflation has had a material effect on our business, financial condition or results of operations during the year ended December 31, 2023; however, operating expenses may continue to increase in future periods due to inflation.

Item 8. Financial Statements and Supplementary Data

The financial statements required to be filed pursuant to this Item 8 are appended to this report. An index of those financial statements is found in Item 15.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act and regulations promulgated thereunder) as of December 31, 2023, or the Evaluation Date. Based on such evaluation, our principal executive officer and principal financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective in recording, processing, summarizing and reporting, on a timely basis, information required to be included in periodic filings under the Exchange Act and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate. Our internal control over financial reporting is a process designed under the supervision of our principal executive officer and principal financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

Our management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria set forth in "Internal Control - Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, our management concluded that, as of December 31, 2023, our internal control over financial reporting was effective.

Remediation of Previously Reported Material Weaknesses

In connection with the preparation of our unaudited interim condensed consolidated financial statements as of and for the six-month period ended June 30, 2023, a material weakness in our internal control over financial reporting was identified. This related to a control deficiency which impacted the presentation of significant or non-routine transactions in the unaudited condensed consolidated statement of comprehensive loss in accordance with IFRS prior to us having to comply with the domestic reporting regime under the Exchange Act.

This control is designed to ensure that, significant or non-routine transactions are identified and that an appropriate accounting analysis is performed by sufficiently qualified individuals and reviewed by appropriate members of management to validate the conclusions, including any judgments and/or estimates.

Management concluded that the control was appropriately designed, however in respect of a transaction involving the income statement classification of a single item, the control did not operate effectively. Management has since taken steps to remediate this deficiency, including increased engagement of external experts to assist in the analysis and determination of the appropriate presentation of significant or non-routine transactions, and documentation thereof.

Management has subsequently operated the control effectively multiple times. Management have therefore concluded that the Material Weakness has been remediated of December 31, 2023. Management has determined that the transaction in question has been presented appropriately in the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America for the year ended December 31, 2023.

Attestation Report of the Registered Public Accounting Firm

Not applicable.

Changes in Internal Control over Financial Reporting

Other than the changes related to the remediation activities related to the previously reported material weaknesses noted above, no other changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the year ended December 31, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

Item 408 Regulation S-K Compliance

During the quarter ended December 31, 2023, no director or officer (as defined in Rule 16a-1(f) of the Exchange Act) of the Company adopted, modified or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as each term is defined in Item 408 of Regulation S-K.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following table presents information about Mereo’s executive officers and non-executive directors, including their ages, as of the date of this Annual Report:

Name	Age	Position
Executive Officers		
Dr. Denise Scots-Knight	64	Chief Executive Officer and Director
Christine Fox	43	Chief Financial Officer
Charles Sermon	54	General Counsel and Business Development
Alexandra (Wills) Hughes-Wilson	52	Chief Patient Access and Commercial Planning
Dr. John Lewicki	72	Chief Scientific Officer
Non-Executive Directors		
Dr. Jeremy Bender	52	Director
Dr. Anders Ekblom	69	Director
Dr. Pierre Jacquet	57	Director
Dr. Annalisa Jenkins	58	Director
Dr. Deepika R. Pakianathan	59	Director
Justin Roberts	41	Director
Dr. Daniel Shames	78	Director
Marc Yoskowitz	49	Director
Michael S. Wyzga	69	Chairman of the Board and Director

The current business addresses for Mereo’s 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 Mereo’s executive officers and non-executive directors:

Dr. Denise Scots-Knight. 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 Elanco Animal Health Incorporated (NYSE: ELAN). Dr. Scots-Knight previously served as a member of the board of directors of Idenix Pharmaceuticals, Albireo and OncoMed. Dr. Scots-Knight holds a B.Sc. (Hons.) and a Ph.D. from Birmingham University.

Christine Fox. Ms. Fox joined as our Chief Financial Officer in January 2021. From 2015 until joining us, Ms. Fox was the Vice President Finance, External Reporting and most recently Group Financial Controller and Treasurer of Travelport, and prior to that served more than 10 years at KPMG in the U.S. and Switzerland. Ms. Fox is a Certified Public Accountant (CPA) and holds a B.S. in Accounting from Butler University.

Charles Sermon. Mr. Sermon serves as our General Counsel and Business Development and has served as our General Counsel since July 2015. From 2010 until joining us, Mr. Sermon was a Partner of Phase4. Mr. Sermon serves as a Director on the Board of Trustees of Rainbow Trust Children’s Charity. Mr. Sermon trained and qualified as a lawyer with Freshfields in London 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 Chief of Patient Access and Commercial Planning, previously titled 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.

Dr. John Lewicki. Dr. Lewicki has served as our Chief Scientific Officer since July 2020. He has over 35 years of experience in the biotechnology industry. Dr. Lewicki was President, CEO and a board member of OncoMed from March 2018 to April 2019. Previously, Dr. Lewicki served as Vice President of Research, at Scios Inc. where he co-discovered human B-type natriuretic peptide (BNP). Dr. Lewicki contributed to development of BNP into an FDA-approved treatment (Natrecor) for acute congestive heart failure. Dr. Lewicki received his PhD from the University of California, San Diego. He has co-authored over 80 papers and is co-inventor on over 30 issued U.S. patents.

Dr. Jeremy Bender. Dr. Bender has served on our board since October 2020. Dr. Bender is Chief Executive Officer and President of DayOne Biopharmaceuticals, Inc. (NASDAQ: DAWN). Dr. Bender also serves on the board of directors of Furion Pharmaceuticals, Inc. Previously he served as Vice President of Corporate Development at Gilead Sciences, Inc., where he was responsible for development and negotiation of partnerships, alliances, joint ventures, equity investments, licensing agreements and M&A transactions. Dr. Bender joined Gilead from Tizona Therapeutics, Inc., where he was Chief Operating Officer. Prior to Tizona, he was Chief Business Officer of Sutro Biopharma, Inc. Dr. Bender received his undergraduate degree in Biological Sciences from Stanford University and his Ph.D. in Microbiology & Immunology from the University of Colorado. He also holds an M.B.A. from the MIT Sloan School of Management.

Dr. Anders Ekblom. 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 and Chief Executive Officer of AstraZeneca AB Sweden. He currently serves as Chairman of the Board of Alligator Bioscience AB, Atrogi AB, Elypta AB and Xspray Pharma AB, and on the boards of directors of AnaMar AB, Flerie Invest AB and Synerkine Pharma Bv. Dr. Ekblom is a board-certified medical doctor and an Associate Professor at the Karolinska Institutet. Dr. Ekblom holds a M.D., Ph.D. and a D.D.S. from Karolinska Institutet.

Dr. Pierre Jacquet. Dr. Jacquet has served on our Board of Directors since September 2021. Dr. Jacquet is currently Managing Director and Vice Chairman of L.E.K. Consulting's Global Healthcare practice. He has served in a variety of leadership roles over 20 years at L.E.K., including Global Head, Healthcare Practice, Global Leadership Team, the Americas management committee, and various partner operating committees. Prior to joining L.E.K. in 2001, Dr. Jacquet was trained as a surgical resident at University of Liège, Belgium and served as a Fellow at the Washington Cancer Institute, where he authored over 40 publications and presentations. In addition to serving on Mereo's Board of Directors, Dr. Jacquet is a Director of Exact Sciences, on the Advisory Board of Life Science Cares, and previously served as a Director of Osprey Pharmaceuticals. He earned a Master of Business Administration from the Darden Graduate School at the University of Virginia, graduated Magna Cum Laude in Medicine from the University of Liège in Belgium and was awarded a Summa Cum Laude Doctor of Philosophy in biomedical sciences from the University of Liège in Belgium.

Dr. Annalisa Jenkins. Dr. Jenkins has served on our Board of Directors since November 2022. Dr. Jenkins served as president and CEO of Dimension Therapeutics, a leading NASDAQ listed gene therapy company that was acquired by Ultragenyx in November 2017. Prior leadership roles have included the head of global research and development at Merck Serono and SVP, Global Development at Bristol Myers-Squibb. Dr. Jenkins is a board member and advisor to a number of public and private health and life science companies globally. She is also a board member of Genomics England and a trustee of The Kings Fund and The British Heart Foundation. Dr. Jenkins graduated with a degree in medicine from St. Bartholomew's Hospital in the University of London and served as a Surgeon Lieutenant Commander in the British Royal Navy.

Dr. Deepika R. Pakianathan. 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 is also the Chief Executive Officer of a privately held start-up biotechnology company operating in stealth mode. Dr. Pakianathan serves on the boards of directors of Karyopharm Therapeutics, Inc. and Theravance Biopharma, Inc., and previously served on the boards of directors of Calithera Biosciences, Foresite Development Corp II, Alder Biopharmaceuticals, Inc., Foresite Development Corp I. 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.

Justin Roberts. Justin Roberts has served on our Board of Directors since November 2022. Mr. Roberts is a Partner at Rubric Capital Management LP, a role he has held since the formation of the company in 2016. Before Rubric he spent seven years at Point72 Asset Management. Mr. Roberts has also held roles at ZS Associates, Moore Capital Management, and began his career at Lehman Brothers as an investment banker in their M&A practice. Mr. Roberts graduated with honors from Johns Hopkins University.

Dr. Daniel Shames. Dr. Shames has served on our Board of Directors since November 2022. Dr. Shames has served as President of Daniel A. Shames Consulting, providing regulatory services to over 100 biotechnology and pharmaceutical clients. Prior to starting his consultancy Dr. Shames spent 12 years at the FDA during which time he was involved in the safety and efficacy review of hundreds of drugs. Most recently Dr. Shames served as Deputy Director, Office of Drug Evaluation III from 2006 to 2008, while also serving as Director of the Division of Gastroenterology and Inborn Error Products. Prior to that he was Director of Reproductive and Urologic Drugs from 2001 to 2006. Before joining the FDA, Dr. Shames founded Carolina Urocorp, operated a private medical practice, and was as Major in the U.S. Army Medical Corps. Dr. Shames received his undergraduate degree from Brandeis University, his MD from Georgetown University School of Medicine, and did his urology residency at the University of Pennsylvania.

Marc Yoskowitz. Mr. Yoskowitz has served on our Board of Directors since November 2022. Mr. Yoskowitz is Chief Executive Officer of Evozyne, Inc. Previously he served as EVP and Chief Strategy Officer, Life Sciences at Tempus, Inc. Prior to Tempus, Mr. Yoskowitz was Chief Business Officer, Pfizer Essential Health, leading a range of corporate initiatives within the Pfizer portfolio. Prior to Pfizer, he served as SVP, Strategy and Corporate Development at Hospira and was a member of the Executive Committee. Earlier in his career, Mr. Yoskowitz led business development at a specialty pharmaceutical company, spent eight years at McKinsey & Company where he was an Associate Principal, and began his career as an M&A lawyer at Davis, Polk & Wardwell in New York. Mr. Yoskowitz received a bachelor's degree magna cum laude from Washington University in St. Louis and holds a JD from Columbia University School of Law.

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. On May 14, 2020, we entered into the Consulting and Interim Chief Financial Officer Agreement with MSW Consulting Inc. and Michael Wyzga by which Mr. Wyzga served as Interim Chief Financial Officer from August 1, 2020 to January 4, 2021. 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 Adagio Therapeutics 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 Exact Sciences Corporation, 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.

Arrangements Concerning Election of Directors; Family Relationships

We are not a party to, and are not aware of, any voting agreements among our shareholders. In addition, there are no family relationships among our executive officers and directors.

Section 16(A) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires the Company's executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports with the SEC relating to their share ownership and changes in such ownership. As a former foreign private issuer, our executive officers, directors and greater than 10% shareholders were not subject to the Section 16(a) filing requirements during the fiscal year ended December 31, 2023.

Insurance and Indemnification

To the extent permitted by the U.K. Companies Act 2006, Mereo is empowered under its Articles to indemnify its directors against any liability they incur by reason of their directorship. Mereo maintains directors' and officers' insurance to insure such persons against certain liabilities. Mereo has entered into a deed of indemnity with each of its directors.

Insofar as indemnification of liabilities arising under the Securities Act may be permitted to the Mereo Board, executive officers, or persons controlling Mereo pursuant to the forgoing provisions, Mereo has 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.

Code of Ethics

The Company currently maintains a Code of Ethics which applies to all directors, officers, and employees. A copy of our Code of Ethics can be found on our website at www.mereobiopharma.com in the "Investors" section under "Corporate Governance." We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendments to, or waivers from, a provision of our Code of Ethics, as well as Nasdaq's requirement to disclose waivers with respect to directors and executive officers, by posting such information on our website at the address and location specified above. The information contained on our website is not incorporated by reference into this Annual Report on Form 10-K.

Composition of the Mereo Board

Our Board currently consists of ten members. We are required to have a board that is composed of a majority of independent directors, as defined under the Nasdaq Stock Market rules. In making the determination of whether a member of the board is independent, our board considers, among other things, the information provided by the directors with regards to each director's business and personal activities and any relationships they have with the Company or management, including with respect to their ownership of the Company's ordinary shares. On the basis of such review and its understanding of such relationships and transactions,

our Board affirmatively determined that Michael Wyzga, Jeremy Bender, Anders Ekblom, Pierre Jacquet, Annalisa Jenkins, Deepa Pakianathan, Justin Roberts, Daniel Shames and Marc Yoskowitz are “independent directors” as defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the Nasdaq Stock Market, representing nine of our ten directors. Dr. Denise Scots-Knight is not an independent director due to her employment as Chief Executive Officer of the Company.

Committees of the Mereo Board

The Mereo Board has four standing committees: an audit and risk committee, a remuneration committee, a nomination and governance committee, and a research and development committee.

Audit and Risk Committee

The audit and risk committee which consists of Deepika R. Pakianathan, Annalisa Jenkins, Michael S. Wyzga and Jeremy Bender, assists the board in overseeing our accounting and financial reporting processes and the audits of our financial statements. Dr. Pakianathan serves as Chair of the committee. The audit and risk committee consists exclusively of members of our board who are financially literate, and Dr. Pakianathan 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;
- approving or ratifying any related person transaction (as defined in our related person transaction policy) in accordance with our related person transaction policy;
- establishing procedures for the confidential anonymous submission of concerns regarding questionable accounting, internal controls or auditing matters; and
- reviewing and monitoring the Company’s key risks, including financial and cybersecurity risks.

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 three 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 Deepika R. Pakianathan, Justin Roberts and Anders Ekblom, assists the board in determining senior management compensation. Dr. Ekblom serves as Chairman of the committee. Under 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. Our board has determined that Dr. Pakianathan, Mr. Roberts 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:

- determining and agreeing with the Mereo Board the framework or broad policy for the remuneration the company's chair, CEO, any other executive directors, the company secretary and other members of senior management;
- reviewing the ongoing appropriateness and relevance of the remuneration policy;
- approving the design of, and determining the performance measures and targets for the company, and evaluating achievements against those targets any performance related pay schemes operated by the company and approving the total annual payments made under such schemes;
- reviewing the design of all share incentive plans for approval by the Mereo Board and shareholders;
- ensuring that contractual terms on termination of employment, and any payments made, are fair to the individual, and the company, that failure is not rewarded and that the duty to mitigate loss is fully recognized;
- at least annually, reviewing all incentive compensation arrangements for the purpose of assessing whether risks arising from the design or implementation of those arrangements do not encourage unnecessary risk-taking;
- overseeing any major changes in employee benefits structures throughout the company;
- establishing the selection criteria, selecting, appointing and setting the terms of reference for any compensation consultants who advise the committee after taking into consideration the factors relevant to advisor independence set forth in Nasdaq Listing Rule 5605(d)(3); and
- administering and overseeing the company's compliance with the compensation recovery policy required by applicable SEC and Nasdaq rules.

Nomination and Corporate Governance Committee

The nomination and corporate governance committee which consists of Michael S. Wyzga, Jeremy Bender, Pierre Jacquet, and Justin Roberts, 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. Mr. Wyzga serves as Chair of the nomination and corporate governance committee. The nomination and corporate governance committee is governed by a charter that complies with Nasdaq rules.

The nomination and corporate governance 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 Pierre Jacquet, Daniel Shames, Marc Yoskowitz 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 Chair 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.

Item 11. Executive Compensation

Our named executive officers for the year ended December 31, 2023 are:

- Dr. Denise Scots-Knight, our Chief Executive Officer;
- Charles Sermon, our General Counsel; and
- Christine Fox, our Chief Financial Officer.

2023 Summary Compensation Table

The following table sets forth the compensation awarded to, earned by or paid to each of our named executive officers for the years indicated.

Name and Principal Position	Year	Salary (\$'000)	Bonus ⁽³⁾ (\$'000)	Stock Awards ⁽⁴⁾ (\$'000)	Option Awards ⁽⁴⁾ (\$'000)	All Other Compensation ⁽⁵⁾ (\$'000)	Total ⁽³⁾ (\$'000)
Dr. Denise Scots-Knight ^{(1) (2)} Chief Executive Officer	2023	565,107	254,298	285,358	1,043,403	71,157	2,219,323
Charles Sermon ⁽²⁾ General Counsel	2022	506,809	304,085	-	1,358,134	68,219	2,237,247
Christine Fox ⁽²⁾ Chief Financial Officer	2023	415,651	162,104	99,540	362,923	48,031	1,088,249
	2022	372,772	186,386	-	339,533	51,198	949,889
	2023	378,120	151,248	91,043	340,240	40,400	1,001,051
	2022	332,833	166,416	-	271,627	40,063	810,939

(1) Dr. Scots-Knight also serves as a director but receives no additional compensation for this service.

(2) Cash compensation paid to all named executive officers is denominated in pounds sterling. For the purposes of this table, all 2023 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2023 (£1/\$1.273) and all 2022 amounts have been converted based on the pound Sterling/U.S. dollar exchange rate in effect as of December 31, 2022 (£1/\$1.2103).

(3) Amount shown reflects cash bonuses awarded for achievement of performance goals.

(4) Amounts reflect the grant date fair value of awards granted in 2023 and 2022 in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, or ASC 718. Such grant date fair value does not take into account any estimated forfeitures related to service-vesting conditions. For information regarding assumptions underlying the valuation of equity awards, see note 17 to our financial statements for the year ended December 31, 2023. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of applicable awards.

(5) These amounts include health benefit and life insurance payments and pension contributions made by us. Life insurance premiums paid by us for named executive officers were: \$3,772 (2022: \$3,217) for Denise Scots-Knight; \$2,774 (2022: \$2,394) for Charles Sermon; and \$2,524 (2022: \$2,017) for Christine Fox.

Narrative Disclosure to the Summary Compensation Table

Annual Base Salary

Each named executive officer's base salary is a fixed component of annual compensation for performing specific duties and functions, and has been established by our board of directors taking into account each individual's role, responsibilities, skills, and experience. Base salaries are typically reviewed annually, with any increases normally taking effect from the first day of January. When awarding salary increases, the Committee will consider the level of increase proposed for the wider workforce, as well as employee pay conditions more broadly in comparison to our peer group companies and inflation. Where there has been a change in the role, or if the individual is new to the role, increases could be higher. The base salary of each named executive officer is noted below:

Name	2023 Annual Base Salary	2022 Annual Base Salary
	(\$'000)	(\$'000)
Dr. Denise Scots-Knight ⁽¹⁾	565,107	506,809
Charles Sermon ⁽¹⁾	415,651	372,772
Christine Fox ⁽¹⁾	378,120	332,833

(1) Compensation paid to all named executive officers is denominated in pounds sterling. For the purposes of this table, all 2023 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2023 (£1/\$1.273) and all 2022 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2022 (£1/\$1.2103).

Annual Cash Bonuses

We have a discretionary bonus scheme for all employees, including the named executive officers. Bonus payments for employees are a percentage of base salary based on performance-based measures against both Company-wide target and personal objectives which can also be increased with stretch performance. Bonus payments for the Chief Executive Officer are a percentage of base salary, based only on performance-based measures against Company-wide target objectives. The annual bonus is payable in cash after the award has been approved by the remuneration committee, usually in January of the following year.

Company performance was assessed against the 2023 Company-wide target objectives, including certain pipeline and development milestones, execution of manufacturing, clinical and compliance processes and partnerships, the achievement of finance-related and business development milestones. As a result, the named executive officers were awarded bonuses against their target bonus rates as follows.

Name	2023 Target Bonus Rate (% of base salary)	2023 Stretch Bonus Rate (% of base salary)	2023 Bonus Achievement (% of base salary)
Dr. Denise Scots-Knight	60%	75%	45%
Charles Sermon	50%	63%	39%
Christine Fox	50%	63%	40%

Equity-Based Incentive Awards

Our equity-based incentive award plan is intended to align the interests of our named executive officers with those of our stockholders and to motivate them to make important contributions to our performance. In 2023, we granted stock options and performance based restricted stock units ("PSUs") to each of our named executive officers, as reflected in the "Outstanding Equity Awards at 2023 Fiscal Year End Table" below.

Executive Officer Employment Agreements

Dr. Denise Scots-Knight

We entered into an employment agreement with Dr. Scots-Knight on July 29, 2015, as amended on September 3, 2021. This agreement entitles Dr. Scots-Knight to receive an annual base salary 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 10% 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. The employment agreement includes the provision of accelerated vesting of share options and payments to Dr. Scots-Knight equal to 18 months' annual base salary and Dr. Scots-Knight's target annual bonus in the event of a covered termination during the period commencing on a change in control of the Company and ending 12 months after such change in control.

Charles Sermon

We entered into an employment agreement with Mr. Sermon on July 29, 2015 as amended on September 3, 2021. This agreement entitles Mr. Sermon to an annual base salary 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. The employment agreement includes the provision of accelerated vesting of share options and payments to Mr. Sermon equal to 12 months' annual base salary and Mr. Sermon's target annual bonus in the event of a covered termination during the period commencing on a change in control of the Company and ending 12 months after such change in control.

Christine Fox

We entered into an employment agreement with Ms. Fox on October 20, 2020, as amended on September 3, 2021. The employment agreement entitles Ms. Fox to receive an annual base salary 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. Fox is also eligible to participate in Mereo's group personal pension scheme and we have agreed to contribute to the pension scheme an amount equal to 10% of Ms. Fox'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 Ms. Fox'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 Mereo may terminate Ms. Fox at any time with immediate effect for cause or by giving written notice to Ms. Fox that we will instead pay her basic salary for any remaining notice period. Ms. Fox'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. The employment agreement includes the provision of accelerated vesting of share options and payments to Ms. Fox equal to 12 months' annual base salary and Ms. Fox's target annual bonus in the event of a covered termination during the period commencing on a change in control of the Company and ending 12 months after such change in control.

Pension, Retirement or Similar Benefits

Mereo operates a defined contribution pension scheme which is available to all employees. Mereo makes payments of up to 10% of base salary for executives, including Mereo's 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. We do not sponsor any qualified or non-qualified defined benefit plans for any of our employees or executives.

Health and Welfare Benefits.

All of our full-time employees, including our executive officers, are eligible to participate in certain medical, disability and life insurance benefit programs offered by us. We pay the premiums for term life insurance and long-term disability for all of our employees, including our executive officers. We also provide all employees, including executive officers, with paid time off benefits including, vacation, sick time and holidays.

Outstanding Equity Awards at 2023 Fiscal Year End Table

The following table presents information regarding all outstanding stock options and stock awards held by each of our named executive officers as of December 31, 2023. All "Securities" within this table are expressed in ADSs, including awards over ordinary shares. Each ADS of the Company represents five ordinary shares.

Name Dr. or Ph.D or MBBS	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Vested (\$'000)
Dr. Denise Scots-Knight	308,949	-	8.63	9/25/2025		
	87,500	-	5.40	5/20/2029		
	87,500	-	3.00	7/23/2029		
	167,708	7,292 (1)	1.84	2/20/2030		
	368,333	15,1667 (2)	2.72	2/1/2031		
	527,083	572,917 (3)	1.40	1/14/2032		
	-	1,150,000 (4)	1.01	1/25/2033		
			-		470,150 (5)	1,086,047
Charles Sermon	154,474	-	8.63	9/25/2025		
	27,500	-	5.40	5/20/2029		
	27,500	-	3.00	7/23/2029		
	81,458	3,542 (1)	1.84	2/20/2030		
	106,250	43,750 (2)	2.72	2/1/2031		
	131,770	143,230 (3)	1.40	1/14/2032		
	-	400,000 (4)	1.01	1/25/2033		
			-		164,000 (5)	378,840
Christine Fox	123,958	46,042 (2)	3.32	1/19/2031		
	105,416	114,584 (3)	1.40	1/14/2032		
	-	375,000 (4)	1.01	1/25/2033		
			-		150,000 (5)	346,500

(1) 25% of the shares underlying this share option vested and became exercisable on February 20, 2021, with the remainder vesting in equal monthly installments for the three years thereafter.

(2) 25% of the shares underlying this share option vested and became exercisable on February 1, 2022, with the remainder vesting in equal monthly installments for the three years thereafter.

(3) 25% of the shares underlying this share option vested and became exercisable on January 14, 2023, with the remainder vesting in equal monthly installments for the three years thereafter.

(4) 25% of the shares underlying this share option will vest and become exercisable on January 25, 2024, with the remainder vesting in equal monthly installments for the three years thereafter.

(5) Each PSU vests upon satisfaction of four escalating ADS price threshold values over a two year performance period. The number included in this table reflects the number of PSUs eligible for vesting. If a minimum ADS price threshold is not met, such PSUs may vest at zero ADSs.

Mereo currently grants equity awards under the Mereo 2019 Equity Incentive Plan (the "2019 EIP") and the 2019 Non-Employee Equity Incentive Plan (the "2019 NED EIP"). There are also still outstanding awards under two previous plans, the 2015

Plan and the Mereo Share Option Plan, however no awards have been granted under these plans since 2016 and no further grants are envisaged. The key terms of the plans are disclosed within note 17 of the Annual Report on Form 10-K.

Non-Executive Directors' Remuneration

The following table presents the total compensation for each person who served as a non-executive member of our board of directors and received compensation for such service during the fiscal year ended December 31, 2023. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or awards to, or pay any other compensation to any of the members of our board of directors in 2023. We reimburse members of our board of directors for reasonable travel expenses. Dr. Scots-Knight, our Chief Executive Officer, did not receive any compensation for her service as a member of our board of directors in 2023. Dr. Scots-Knight's compensation for service as an employee for fiscal years 2023 and 2022 is presented in "Executive Compensation—2023 Summary Compensation Table."

Name	Fees Earned or	Stock	Option Awards	Total
	Paid in Cash ⁽¹⁾	Awards ⁽²⁾	⁽²⁾	
	(\$'000)	(\$'000)	(\$'000)	(\$'000)
Dr. Jeremy Bender	—	58,669	—	105,082
Dr. Anders Ekblom	—	74,894	—	121,306
Dr. Pierre Jacquet	—	55,771	—	102,184
Dr. Annalisa Jenkins	—	54,550	—	100,963
Dr. Deepika R. Pakianathan	67,349	—	—	113,761
Justin Roberts ⁽³⁾	—	—	—	—
Dr. Daniel Shames	—	51,336	—	97,748
Marc Yoskowitz	—	48,076	—	94,488
Michael S. Wyzga	—	110,384	—	156,797

(1) Compensation paid to all non-executive directors is denominated in pounds sterling. For the purposes of this table, all 2023 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2023 (£1/\$1.273) and all 2022 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2022 (£1/\$1.2103).

(2) Amounts reflect the grant date fair value of awards granted in 2023 and 2022 in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, or ASC 718. Such grant date fair value does not take into account any estimated forfeitures related to service-vesting conditions. For information regarding assumptions underlying the valuation of equity awards, see note 17 to our financial statements for the year ended December 31, 2023. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of applicable awards.

(3) Mr. Roberts has waived all remuneration in respect of his appointment as a non-executive director.

Non-Executive Director Compensation Policy

Our non-executive directors are eligible to earn cash fees for service on the board of directors and for service on each committee on which the director is a member. The chairperson of each committee receives a higher fee for such service. Non-executive directors may voluntarily elect to convert their annual cash fees into Deferred RSUs (over ADSs). The number of Deferred RSUs granted is determined by dividing the amount of the annual cash compensation by the average closing trading price of the Company's ADSs over the most recent 30 trading days as of the grant date. These Deferred RSUs are delivered under the terms of the existing 2019 NED Plan and they vest in substantially equal monthly installments over the plan year. Payment of Deferred RSUs in ADSs will generally be made 180 days following separation of service.

In addition to annual cash fees or Deferred RSUs, as elected, equity incentive awards are granted to non-executive directors in line with the 2019 NED Plan. In February 2023, a total of 55,000 equity incentive awards in the form of market value options over ADSs, were granted to each non-executive director at an exercise price of \$0.94 per ADS, with a vesting period of one year; vesting is in equal monthly installments over the one-year period following grant date. No performance conditions were attached to the awards.

The fees payable to directors for service on the board of directors and for service on each committee of the board of directors on which the director is a member are as follows:

	Member Annual Fee ⁽¹⁾	Chairperson Annual Fee ⁽¹⁾
	(\$'000)	(\$'000)
Board of Directors	39,463	40,991
Audit and Risk Committee	7,638	19,732
Remuneration Committee	5,601	11,712
Nomination and Corporate Governance Committee	4,456	8,911
Research and Development Committee	5,092	10,184

(1) Compensation in the form of annual cash fees or deferred RSUs, as elected, paid to non-executive directors is denominated in pounds sterling. For the purposes of this table, all 2023 amounts have been converted based on the pound sterling/U.S. dollar exchange rate in effect as of December 31, 2023 (£1/\$1.273).

We also reimburse our non-executive directors for reasonable out-of-pocket expenses incurred in connection with attending our board of director and committee meetings.

Non-Executive Directors - Outstanding Equity Awards at 2023 Fiscal Year End Table

The following table presents information regarding all outstanding stock awards and stock options held by each of our non-executive directors as of December 31, 2023:

Name Dr. or Ph.D or MBBS	Option awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Vested (\$'000)
Dr. Jeremy Bender	22,000		3.32	1/19/2031		
	31,500		2.72	2/1/2031		
	55,000		1.31	2/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	5,202 (3)	12,017
Dr. Anders Ekblom	43,252		8.63	9/25/2025		
	5,500		5.40	5/20/2029		
	5,500		3.00	7/23/2029		
	11,000		1.84	2/20/2030		
	31,500		2.72	2/1/2031		
	55,000		1.31	2/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	6,640 (3)	15,338
Dr. Pierre Jacquet	55,000	-	1.31	2/1/2032		
	33,393	-	1.31	2/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	4,945 (3)	11,423
Dr. Annalisa Jenkins	9,167	-	0.79	12/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	4,752 (3)	10,977
Dr. Deepika R. Pakianathan	5,500	-	5.40	5/20/2029		
	5,500	-	3.00	7/23/2029		
	11,000	-	1.84	2/20/2030		
	31,500	-	2.72	2/1/2031		
	55,000	-	1.31	2/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033		
Justin Roberts (1)	-	-	-	-	-	-
Dr. Daniel Shames	9,167	-	0.79	12/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	4,495 (3)	10,383
Marc Yoskowitz	9,167	-	0.79	12/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	3,982 (3)	9,198
Michael S. Wyzga					343 (3)	792
	5,500	-	5.40	5/20/2029		
	5,500	-	3.00	7/23/2029		
	11,000	-	1.84	2/20/2030		
	31,500	-	2.72	2/1/2031		
	55,000	-	1.31	2/1/2032		
	45,833	9,167 (2)	0.94	2/1/2033	3,429 (3)	7,921
					9,786 (3)	22,606

(1) Mr. Roberts has waived all remuneration in respect of his appointment as a non-executive director.

(2) These options vest in substantially equal monthly installments over a one year period from the February 1, 2023 grant date and fully vested on February 1, 2024.

(3) Each Deferred RSU was granted to non-executive directors who elected to receive them in the form of ADSs in lieu of annual cash compensation. Deferred RSUs vest in substantially equal monthly installments over the plan year following the grant date and became fully vested in January 2024. Payment of Deferred RSUs in ADSs will generally be made 180 days following separation of service.

Non-Executive Director Service Contracts

The remuneration of the non-executive directors is determined by the Mereo Board as a whole, based on a review of current practices in other companies. Mereo has entered into service contracts with Mereo's non-executive 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.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth information relating to the beneficial ownership of Mereo ordinary shares as of February 29, 2024 by each person known by Mereo to own beneficially 5% or more of the outstanding Mereo ordinary shares.

The number of Mereo ordinary shares beneficially owned by each person 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 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 Mereo ordinary shares held by that person.

The percentage of Mereo ordinary shares beneficially owned as of February 29, 2024 is computed on the basis of 701,287,029 ordinary shares outstanding as of February 29, 2024. Mereo ordinary shares that a person has the right to acquire within 60 days of February 29, 2024 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.

Name and Address of Beneficial Owner	Number of Ordinary Shares Beneficially Owned ⁽¹⁾	Percentage of Ordinary Shares Beneficially Owned
5% or Greater Shareholders:		
Entities affiliated with Rubric Capital Management LP ⁽²⁾	99,714,985	14.22%
Entities affiliated with Adage Capital Management LP ⁽³⁾	50,250,000	7.17%
Entities affiliated with Mangrove Partners IM, LLC ⁽⁴⁾	43,764,465	6.24%
Entities affiliated with Rock Springs Capital Management LP ⁽⁵⁾	39,919,255	5.69%
Entities affiliated with Suvretta Capital Management, LLC ⁽⁶⁾	36,854,190	5.26%
Named Executive Officers		
Dr. Denise Scots-Knight ⁽⁷⁾	13,045,769	1.86%
Charles Sermon ⁽⁸⁾	4,126,439	0.59%
Christine Fox ⁽⁹⁾	1,945,310	0.28%
Directors		
Dr. Jeremy Bender ⁽¹⁰⁾	855,000	0.12%
Dr. Anders Ekblom ⁽¹¹⁾	1,260,960	0.18%
Dr. Pierre Jacquet ⁽¹⁰⁾	754,465	0.11%
Dr. Annalisa Jenkins ⁽¹⁰⁾	358,335	0.05%
Dr. Deepika R. Pakianathan ⁽¹⁰⁾	855,000	0.12%
Justin Roberts ⁽¹²⁾	-	0.00%
Dr. Daniel Shames ⁽¹⁰⁾	358,335	0.05%
Marc Yoskowitz ⁽¹⁰⁾	358,335	0.05%
Michael S. Wyzga ⁽¹⁰⁾	855,000	0.12%
<i>All Executive Officers and Directors as a group (14 persons)</i>	28,240,928	4.03%

(1) Ordinary shares figures include ordinary shares represented by ADSs.

(2) Based solely on information contained in the Form 3 filed by Rubric Capital Management LP with the SEC on January 2, 2024. The address of the principal business office of Rubric Capital Management LP is 155 East 44th Street, Suite 1630, New York, NY 10017.

(3) Based solely on information contained in Schedule 13G filed by Adage Capital Partners GP, L.L.C. ("ACGP") with the SEC on February 5, 2024. Shares are directly held by Adage Capital Partners, L.P. ("ACP"). Adage Capital Partners GP, L.L.C. ("ACPGP") is general partner of ACP. Adage Capital Management, L.P. ("ACM") is the investment manager of ACP. Robert Atchinson and Robert Gross are managing members of Adage Capital Advisors, LLC, managing member of ACPGP, and managing members of Adage Capital Partners, LLC, general partner of ACM. The address of the principal business office of the entities affiliated with ACM is 200 Clarendon Street, 52nd Floor, Boston, Massachusetts 02116

(4) Based solely on information contained in Schedule 13G filed by Mangrove Partners IM, LLC ("Mangrove Partners") with the SEC on February 14, 2024. The ordinary shares are held by the Mangrove Partners Master Fund, Ltd., a Cayman Islands limited liability company ("Master Fund"). Beneficial ownership of the ordinary shares is claimed by (i) Mangrove Partners which serves as the investment manager of the Master Fund, and (ii) Nathaniel August who is the principal of Mangrove Partners. The address of the principal business office of the entities affiliated with Mangrove Partners is c/o Delaware Corporations LLC, 1000 N. West Street, Suite 1501, Wilmington, DE 19801

(5) Based solely on information contained in Schedule 13G filed by Rock Springs Capital Management LP ("RCSM") with the SEC on February 14, 2024. Shares are held directly by the Rock Springs Capital Master Fund LP ("Master Fund"), which is a Cayman Island exempted limited partnership, and Four Pines Master Fund LP ("Four Pines"), which is a Cayman Islands exempted limited partnership, and indirectly held by RSCM, a Delaware limited partnership, and Rock Springs Capital LLC ("RSC"), a Delaware limited liability company. RSCM serves as the investment manager to each of the Master Fund and Four Pines. RSC is the general partner of RSCM. The address of the principal business office of the entities affiliated with RCSM is 650 South Exeter, Suite 1070 Baltimore, MD 21202

(6) Based solely on information contained in Schedule 13G filed by Suvretta Capital Management, LLC ("Suvretta") with the SEC on February 13, 2024. Suvretta is the investment manager of Averill Master Fund, Ltd. ("Averill Master Fund"). Aaron Cowen a control person of Suvretta and Averill Madison Master Fund, Ltd. Each of

Suvretta, Averill Master Fund and Aaron Cowen disclaims beneficial ownership except to the extent of their pecuniary interest therein. The address for Suvretta and Aaron Cowen is 540 Madison Avenue, New York, New York 10022. The address for Averill Master Fund is P.O. Box 309, Uglund House, Grand Cayman KY1-1104, Cayman Islands.

(7) Includes 560,413 ADSs beneficially owned, plus 4 ordinary shares beneficially owned, plus 2,048,740 ADSs underling share awards that are exercisable within 60 days of February 29, 2024.

(8) Includes 132,376 ADSs beneficially owned, plus 4 ordinary shares beneficially owned, plus 692,911 ADSs underling share awards that are exercisable within 60 days of February 29, 2024.

(9) Includes 10,000 ADSs beneficially owned plus 379,062 ADSs underling share awards that are exercisable within 60 days of February 29, 2024.

(10) All holdings are ADSs underling share awards that are exercisable within 60 days of February 29, 2024.

(11) Includes 37,940 ADSs beneficially owned plus 214,252 ADSs underling share awards that are exercisable within 60 days of February 29, 2024.

(12) Mr. Roberts is a partner of Rubric Capital Management LP, which has ultimate voting and investment power over the ordinary shares and ADSs held by Rubric Capital Management LP. He disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. Mr. Roberts has waived all remuneration in respect of his appointment as a non-executive director.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table summarizes information about our equity compensation plans as of December 31, 2023.

	Number of Ordinary Shares to be Issued upon Exercise of Outstanding Options, RSUs, DRSUs and PSUs ⁽²⁾ (#)	Weighted Average Exercise Price of Outstanding Options ⁽³⁾ (\$)	Number of Ordinary Shares Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in the First Column) ⁽⁴⁾ (#)
Equity compensation plans approved by shareholders ⁽¹⁾	75,399,815	0.52	23,257,557

(1) This category consists of our Mereo 2019 Equity Incentive Plan, the 2019 Non-Employee Equity Incentive Plan, the 2015 Plan, and the Mereo Share Option Plan.

(2) Consists of: (i) 62,613,030 ordinary shares issuable upon the exercise of outstanding time-based stock options, (ii) 2,446,125 ordinary shares issuable in settlement of outstanding restricted stock units awarded, (iii) 3,649,910 ordinary shares issuable in settlement of outstanding deferred restricted stock units awarded, and (iv) 6,690,750 ordinary shares issuable in settlement of outstanding performance units awarded.

(3) The weighted-average exercise price includes all outstanding stock options but does not include restricted stock units, deferred restricted stock units, or performance units, all of which do not have an exercise price.

(4) On January 23, 2024, we filed a Form S-8 to register an additional 37,234,627 ordinary shares for issuance under the above named plans.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The following is a description of related party transactions we have entered into since January 1, 2022, or currently in effect with any member of our board of directors or executive officers and the holders of more than 5% of our ordinary shares or ADSs.

Transactions with Mereo's Executive Officers and Directors

We have entered into employment agreements or consultancy agreements with our executive officers. See "Item 11. Executive Compensation—Executive Officer Employment Agreements."

Employee Benefit Trust

In 2016, we established an Employee Benefit Trust ("EBT") for the purpose of holding ordinary shares (subsequently ADSs) to satisfy the exercise of options under the Company's share-based incentive schemes.

No funding was loaned to the EBT by the Company during the year ended December 31, 2023 or 2022. During the years ended December 31, 2023 and 2022, no ordinary shares were purchased by the EBT. A total of 15,926 ADSs (2022: 15,645) held by the EBT were used in the year-ended December 31, 2023 to satisfy the exercise of options under the Company's share-based incentive schemes. As of December 31, 2023 the EBT holds 184,680 ADSs (2022: 206,606) along with \$21,949 in cash (2022: \$21,472).

Indemnity Agreements

We have entered into deeds of indemnity with each of our directors. See “Item 10. Directors, Executive Officers and Corporate Governance—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.

Item 14. Principal Accounting Fees and Services

On September 20, 2023, our Board of Directors, following the recommendation of the audit and risk committee, dismissed BDO LLP (“BDO”) as our independent registered public accounting firm and appointed PricewaterhouseCoopers LLP (United Kingdom) (“PwC”) as our new independent registered public accounting firm effective immediately.

BDO had served as our independent registered public accounting firm for the year ended December 31, 2022 and until September 20, 2023 while we reported as a foreign private issuer and prepared our financial statements in accordance with IFRS.

PwC has served as our independent registered public accountants since September 20, 2023 and was appointed by our Board of Directors to act as our independent auditor for the fiscal year ending December 31, 2023 and has audited our financial statements prepared in accordance with U.S. GAAP for the years ended December 31, 2023 and 2022.

The table below sets forth a summary of the fees billed to us by our auditors for professional services rendered for the years ended December 31, 2023 and 2022. All such audit and audit-related services were pre-approved by the Audit Committee.

Types of Fees	2023	2022
	(\$'000)	(\$'000)
Audit fees ⁽¹⁾	1,162	489
Audit-related fees ⁽²⁾	213	104
Tax fees	—	—
All other fees ⁽³⁾	3	—
Total Fees	1,378	592

(1) There was a change in registered auditor during the year. Of this amount, \$ 1.0 million was in relation to the current auditors and includes amounts paid for the company's transition from IFRS to US GAAP.

(2) These fees were in relation to the former auditors and were all approved by the audit committee pursuant to its pre-approval policies.

(3) These fees were in relation to the current auditors and were all approved by the audit committee pursuant to its pre-approval policies.

Audit Fees

For the fiscal years ended December 31, 2023 and 2022, we were billed approximately \$1.27 million and \$0.49 million, respectively, for professional services rendered by our independent auditors for the audit of our financial statements, which includes the audits of our wholly-owned subsidiaries.

Audit-Related Fees

For the fiscal years ended December 31, 2023 and 2022, we were billed approximately \$0.21 million and \$0.10 million, respectively, for professional services rendered by our independent auditors for audit-related services. These include the review of our interim financial statements, review of our registration statement and related consents and issuance of comfort letters.

Tax Fees

None.

All Other Fees

For the fiscal year ended December 31, 2023 we were billed less than \$0.1 million for software provided by our independent auditors.

Pre-Approval Policies

The audit and risk committee has adopted a policy and procedures for the pre-approval of audit, review and attest services and permitted non-audit services rendered by PwC. The policy generally permits the audit and risk committee to pre-approve, on an annual basis, specified services in the defined categories of audit services, audit-related services, tax services and other permitted non-audit services. Pre-approval may also be given as part of the audit and risk committee's approval of the scope of the engagement of the auditor or on an individual, explicit, case-by-case basis before the auditor is engaged to provide each service.

The audit and risk committee has determined that the rendering of certain services other than audit services by PwC are compatible with maintaining the accounting firm's independence.

The audit and risk committee has delegated to its chair the authority, from time to time, to pre-approve non-audit services not prohibited by law to be performed by our independent auditors and the associated fees, provided that the estimated fees for such permitted non-audit services do not exceed specified thresholds and provided that the chair shall report any decisions to pre-approve such non-audit services and fees to our full audit and risk committee at its next regular meeting.

PART IV

Item 15. Exhibits and Financial Statement Schedules

1. Financial Statements

As part of this Annual Report on Form 10-K, the consolidated financial statements are as follows:

Audited Financial Statements	Page
Report of independent registered public accounting firm	F-2
Consolidated balance sheets	F-3
Consolidated statements of operations and comprehensive loss	F-4
Consolidated statements of cash flows	F-5
Consolidated statements of shareholders' equity	F-6
Notes to consolidated financial statements	F-7

2. Financial Statement Schedules

All schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is otherwise included.

3. Exhibit Index

The following is a list of exhibits filed as part of this Annual Report on Form 10-K or are incorporated herein by reference.

Exhibit Number	Description of Exhibit
2.1	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. (incorporated by reference to Exhibit 2.1 to Mereo's Form F-4/A filed March 15, 2019 (File No. 333- 229351)).
2.2†	BCT197 Asset Purchase Agreement, dated July 28, 2015, by and between Mereo BioPharma 1 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.20 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.2.1	Addendum to the Asset Purchase Agreement, dated April 12, 2016, by and between Mereo BioPharma 1 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.20.3 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.2.2	Addendum to the Asset Purchase Agreement, dated October 4, 2017, by and between Mereo BioPharma 1 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.20.2 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.2.3	Amendment Agreement for BCT197, dated October 19, 2018, by and between Mereo BioPharma 1 Limited and Novartis Pharma AG (incorporated into by reference to Exhibit 10.20.1 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).

Exhibit Number	Description of Exhibit
2.3†	BGS649 Asset Purchase Agreement, dated July 28, 2015, by and between Mereo BioPharma 2 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.21 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.3.1	Addendum to the Asset Purchase Agreement, dated August 17, 2017, by and between Mereo BioPharma 2 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.21.2 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.3.2	Amendment Agreement for BGS649, dated October 19, 2018, by and between Mereo BioPharma 2 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.21.1 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.4†	BPS804 Asset Purchase Agreement, dated July 28, 2015, by and between Mereo BioPharma 3 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.22 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.4.1	Addendum to the Asset Purchase Agreement, dated December 21, 2016, by and between Mereo BioPharma 3 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.22.2 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
2.4.2†	Amendment Agreement, dated August 10, 2018, by and between Mereo BioPharma 3 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.22.1 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
3.1	Articles of Association of the Company (incorporated by reference to Exhibit 3.1 to the Company's Form 6-K, filed with the SEC on December 18, 2022 (File No. 001-38452)).
4.1	Form of American Depositary Receipt of Mereo BioPharma Group plc (incorporated by reference to Exhibit 4.3 to Mereo's Form F-4/A filed March 15, 2019 (File No. 333-229351)).
4.2*	Description of Securities Registered under Section 12 of the Exchange Act.
10.1†	Sublicense Agreement, dated July 29, 2015, by and between Mereo BioPharma 3 Limited and Novartis Pharma AG (incorporated by reference to Exhibit 10.23 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
10.2 †	Exclusive License and Option Agreement, dated October 28, 2017, by and between Mereo BioPharma 4 Limited and AstraZeneca AB (incorporated by reference to Exhibit 10.24 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
10.3	Form of Deed of Indemnity for members of the board of directors of Mereo BioPharma Group plc (incorporated by reference to Exhibit 10.26 to Mereo's Form F-4 filed January 25, 2019 (File No. 333-229351)).
10.4	Form of Contingent Value Rights Agreement by and between Computershare, Inc., as rights agent, and Mereo BioPharma Group plc (incorporated by reference to Annex B to Mereo's Form F-4/A filed March 15, 2019 (File No. 333-229351)).
10.5	Mereo BioPharma Group plc 2019 Equity Incentive Plan, as amended on February 13, 2020 and January 15, 2021 (incorporated by reference to Exhibit 99.1 to the Company's Form S-8 filed January 15, 2021 (File No. 333-252147)).
10.6	Deed of Consent and Amendment to Convertible Loan Note Instrument, dated December 17, 2020 between Mereo BioPharma Group plc. and the Noteholders named therein (incorporated by reference to Exhibit 4.21 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).
10.7	Mereo BioPharma Group plc 2019 Non-Employee Equity Incentive Plan, as amended on February 13, 2020 and January 15, 2021 (incorporated by reference to Exhibit 99.2 to the Company's Form S-8 filed January 15, 2021 (File No. 333-252147)).
10.8	Form of Amended Convertible Loan Note Instrument, dated December 18, 2020 relating to Mereo BioPharma Group plc. (incorporated by reference to Exhibit 4.22 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).

Exhibit Number	Description of Exhibit
10.9	Form of Amended Convertible Loan Note Instrument, dated February 5, 2021 relating to Mereo BioPharma Group plc. (incorporated by reference to Exhibit 4.23 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).
10.10	Form of Amended Convertible Loan Note Instrument, dated March 29, 2021 relating to Mereo BioPharma Group plc. (incorporated by reference to Exhibit 4.24 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).
10.11	Deed of Consent and Amendment to Warrant Instrument, dated March 29, 2021 between Mereo BioPharma Group plc. and the Alpha-1 Project, Inc. (incorporated by reference to Exhibit 4.25 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).
10.12	Employment Agreement, dated July 1, 2020 between Mereo BioPharma Group plc and John Lewicki (incorporated by reference to Exhibit 4.27 to Mereo's 20-F filed March 31, 2021 (File No. 001-38452)).
10.13†††	License Agreement, dated January 13, 2020, between OncoMed Pharmaceuticals, Inc., Mereo BioPharma Group plc and Oncologie, Inc. (incorporated by reference to Exhibit 4.45 to Mereo's Form 20-F filed March 31, 2021 (File No. 001-38452)).
10.14	Form of Convertible Loan Instrument, dated February 10, 2020 relating to Mereo BioPharma Group plc (incorporated by reference to Exhibit 4.28 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.15	Form of Warrant Instrument, dated February 10, 2020 relating to Mereo BioPharma Group plc (incorporated by reference to Exhibit 4.29 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.16	Deed of Consent and Amendment to Note Instrument, dated November 24, 2020 between Mereo BioPharma Group plc. and Novartis Pharma AG (incorporated by reference to Exhibit 4.30 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.17	Deed of Consent and Amendment to Warrant Instrument, dated November 24, 2020 between Mereo BioPharma Group plc. and Novartis Pharma AG (incorporated by reference to Exhibit 4.31 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.18††	Collaboration and License Agreement, dated December 17, 2020, between Mereo BioPharma 3 Limited and Ultragenyx Pharmaceutical Inc. (incorporated by reference to Exhibit 4.32 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.19	Amended and restated Contract of Employment, dated September 3, 2021, between Mereo BioPharma Group plc and Denise Scots-Knight (incorporated by reference to Exhibit 4.33 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.20	Amended and restated Contract of Employment, dated September 3, 2021, between Mereo BioPharma Group plc and Christine Fox (incorporated by reference to Exhibit 4.34 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.21	Amended and restated Contract of Employment, dated September 3, 2021, between Mereo BioPharma Group plc and Charles Sermon (incorporated by reference to Exhibit 4.36 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.22	Amended and restated Contract of Employment, dated September 16, 2021, between Mereo BioPharma Group plc and Alexandra (Wills) Hughes-Wilson (incorporated by reference to Exhibit 4.37 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.23	Form of Change in Control and Severance Agreement for Executives employed by Mereo Biopharma 5, Inc. (incorporated by reference to Exhibit 4.40 to Mereo's 20-F filed March 31, 2022 (File No. 001-38452)).
10.24	Form of Letter of Appointment for members of the board of directors of Mereo BioPharma Group plc. (incorporated by reference to Exhibit 4.17 to Mereo's Form F-4 filed March 28, 2023 (File No. 333-229351)).

Exhibit Number	Description of Exhibit
10.25	Deed of Consent and Amendment to Note Instrument, dated February 9, 2023 between Mereo BioPharma Group plc and Novartis Pharma AG (incorporated by reference to Exhibit 4.46 to Mereo's Form 20-F filed March 28, 2023 (File No. 001-38452)).
10.26	Form of Warrant Instrument, dated February 10, 2023, relating to Mereo BioPharma Group plc (incorporated by reference to Exhibit 4.47 to Mereo's Form 20-F filed March 28, 2023 (File No. 001-38452)).
10.27	Deferred Compensation Plan for Non-Employee Directors, as amended on December 13, 2023 (incorporated by reference to Exhibit 4.3 to Mereo's S-8 filed January 23, 2024 (File No. 333-276656)).
10.28	Form of Performance Based Restricted Stock Unit Award Agreement under the Plan (incorporated by reference to Exhibit 4.4 to Mereo's Form S-8 filed January 24, 2023 (File No. 333-269388))
10.29	Form of Restricted Stock Unit Award Agreement under the Plans (incorporated by reference to Exhibit 4.5 to Mereo's Form S-8 filed January 24, 2023 (File No. 333-269388))
10.30*†††	License Agreement, dated December 11, 2023, between Mereo BioPharma Group plc and ReprNovo SA.
19.1*	Insider Trading Policy
21.1	List of Subsidiaries of Mereo BioPharma Group plc. (incorporated by reference to Exhibit 8.1 Mereo's Form 20-F filed March 28, 2023 (File No. 001-38452))
23.1*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
24.1*	Power of Attorney (included on signature page of this report).
31.1*	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97.1*	Mereo BioPharma Group plc Compensation Recovery Policy
101	The following materials from this Annual Report on Form 10-K formatted in XBRL (Extensible Business Reporting Language) are furnished herewith: (i) the Report of Independent Registered Public Accounting Firm, (ii) the consolidated statements of financial position data, (iii) the consolidated statements of comprehensive loss data, (iv) the consolidated statements of changes in shareholders' equity (capital deficiency), (v) the consolidated statements of cash flows, and (vi) the notes to consolidated financial statements, in each case tagged as blocks of text and in detail.
104	Cover Page Interactive Data File.

* Filed herewith.

† Portions of this exhibit are subject to a previously filed confidential treatment order pursuant to Rule 406 under the Securities Act.

†† Confidential portions of this exhibit were redacted pursuant to Item 601(b)(10) of Regulation S-K and the Company agrees to furnish supplementally to the Commission a copy of any omissions upon request.

††† Certain portions of this exhibit have been omitted because they are not material and they are the type of information that the Registrant treats as private or confidential.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized, on March 27, 2024.

By: /s/ Denise Scots-Knight

Name: Denise Scots-Knight

Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Denise Scots-Knight and Christine Fox, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on March 27, 2024, in the capacities indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Denise Scots-Knight</u> Denise Scots-Knight	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 27, 2024
<u>/s/ Christine Fox</u> Christine Fox	Chief Financial Officer <i>(Principal Accounting and Financial Officer)</i>	March 27, 2024
<u>/s/ Michael Wyzga</u> Michael Wyzga	Chairman of the Board of Directors	March 27, 2024
<u>/s/ Jeremy Bender</u> Jeremy Bender	Director	March 27, 2024
<u>/s/ Anders Ekblom</u> Anders Ekblom	Director	March 27, 2024
<u>/s/ Pierre Jacquet</u> Pierre Jacquet	Director	March 27, 2024
<u>/s/ Annalisa Jenkins</u> Annalisa Jenkins	Director	March 27, 2024
<u>/s/ Deepika Pakianathan</u> Deepika Pakianathan	Director	March 27, 2024
<u>/s/ Justin Roberts</u> Justin Roberts	Director	March 27, 2024
<u>/s/ Daniel Shames</u> Daniel Shames	Director	March 27, 2024
<u>/s/ Marc Yoskowitz</u> Marc Yoskowitz	Director	March 27, 2024

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Mereo BioPharma Group plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mereo BioPharma Group plc and its subsidiaries (the “Company”) as of December 31, 2023 and December 31, 2022, and the related consolidated statements of operations and comprehensive loss, changes in equity and cash flows for the years then ended, including 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 as of December 31, 2023 and December 31, 2022, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated 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 of these consolidated financial statements 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 consolidated 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 its 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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Reading, United Kingdom

March 27, 2024

We have served as the Company's auditor since 2023.

MERO BIOPHARMA GROUP PLC
CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	Year ended December 31,	
	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 57,421	\$ 68,182
Prepaid expenses and other current assets	5,156	5,446
Research and development incentives receivables	1,183	1,569
Total current assets	63,760	75,197
Property and equipment, net	405	551
Operating lease right-of-use assets	1,245	1,665
Intangible assets	1,089	—
Total assets	\$ 66,499	\$ 77,413
Liabilities		
Current liabilities:		
Accounts payable	\$ 2,346	\$ 3,492
Accrued expenses	5,467	5,436
Convertible loan notes – current	—	13,326
Warrant liabilities – current	—	486
Operating lease liabilities – current	652	564
Other current liabilities	1,021	1,071
Total current liabilities	9,486	24,375
Convertible loan notes – non current	4,394	—
Warrant liabilities – non current	412	157
Operating lease liabilities – non current	906	1,479
Other non-current liabilities	764	—
Total liabilities	15,962	26,011
Commitments and contingencies (note 19)		
Shareholders' Equity		
Ordinary shares, par value £0.003 per share; 701,217,089 shares issued at December 31, 2023 (2022: 624,928,519).	2,775	2,478
Treasury shares	(1,230)	(1,335)
Additional paid-in capital	486,107	476,521
Accumulated deficit	(419,630)	(404,575)
Accumulated other comprehensive loss	(17,485)	(21,687)
Total shareholders' equity	50,537	51,402
Total liabilities and shareholders' equity	\$ 66,499	\$ 77,413

The accompanying notes form an integral part of these consolidated financial statements.

MERO BIOPHARMA GROUP PLC
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share amounts)

	Year ended December 31,	
	2023	2022
Revenue	\$ 10,000	\$ —
Operating expenses:		
Cost of revenue	(2,574)	1,146
Research and development	(17,418)	(29,465)
General and administrative	(18,424)	(26,107)
Loss from operations	(28,416)	(54,426)
Other income/(expenses)		
Interest income	2,131	840
Interest expense	(2,881)	(4,175)
Changes in the fair value of financial instruments	245	9,286
Foreign currency transaction (loss)/gain, net	(2,347)	2,723
Other (expenses)/income, net	(10)	1,086
Benefit from research and development tax credit	1,280	1,728
Net loss before income tax	(29,998)	(42,938)
Income tax benefit	532	718
Net loss	<u>\$ (29,466)</u>	<u>\$ (42,220)</u>
Loss per share – basic and diluted	<u>\$ (0.04)</u>	<u>\$ (0.07)</u>
Weighted average shares outstanding – basic and diluted	<u>659,453,921</u>	<u>603,196,403</u>
Net loss	\$ (29,466)	\$ (42,220)
Other comprehensive income/(loss) – Foreign currency transaction adjustments, net of tax	4,202	(10,660)
Total comprehensive loss	<u>\$ (25,264)</u>	<u>\$ (52,880)</u>

The accompanying notes form an integral part of these consolidated financial statements.

MERO BIOPHARMA GROUP PLC
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands, except per share amounts)

	Year ended December 31,	
	2023	2022
Cash flows from operating activities		
Net loss	\$ (29,466)	\$ (42,220)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	4,924	4,768
Depreciation	171	181
Amortization of intangible assets	395	—
Amortization of operating lease right-of-use assets	495	708
Change in fair value of warrants	(245)	(9,286)
Interest income	(102)	—
Interest expense	1,942	4,103
Foreign currency transaction loss/(gain)	2,347	(2,723)
Other (income)/expenses	—	(2,000)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	502	532
Research and development incentives receivable	456	(3,467)
Accounts payable	(1,263)	617
Accrued expenses and other liabilities	(710)	844
Operating lease liabilities	(578)	(878)
Net cash used in operating activities	(21,132)	(48,821)
Cash flows from investing activities		
Purchase of property and equipment	—	(13)
Proceeds from out-licensing	—	2,000
Purchase of intangible assets	(419)	—
Net cash provided by/(used in) investing activities	(419)	1,987
Cash flows from financing activities		
Proceeds from TAP agreement	100	200
Proceeds from issuance of ordinary shares	11,605	—
Transaction costs on issuance of ordinary shares	(511)	—
Transaction costs on convertible loan notes	(33)	—
Redemption of convertible loan notes	(3,188)	—
Net cash provided by financing activities	7,973	200
Decrease in cash and cash equivalents	(13,579)	(46,634)
Cash and cash equivalents at January 1	68,182	127,398
Effect of exchange rate changes	2,818	(12,582)
Cash and cash equivalents at December 31	\$ 57,421	\$ 68,182
Supplemental disclosure		
Cash paid for interest	884	24
Cash (received)/paid for income taxes	(1,337)	1,882
Cash paid for the amounts included in the measurement of operating lease liabilities	759	1,153
Supplemental disclosure of non-cash investing and financing activities		
Conversion of notes into ordinary shares	5,318	3,428

The accompanying notes form an integral part of these consolidated financial statements.

MERO BIOPHARMA GROUP PLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In thousands, except per share amounts)

	Ordinary shares		Treasury shares		Additional paid-in capital	Accumulated other comprehensive (loss)/income	Accumulated deficit	Total shareholders' equity
	Shares	Cost	Shares	Cost				
Balance, January 1, 2022	584,908,239	\$ 2,333	1,081,255	\$ (1,440)	\$ 476,768	\$ (11,027)	\$ (374,436)	\$ 92,198
Net loss	—	—	—	—	—	—	(42,220)	(42,220)
Foreign currency translation adjustments	—	—	—	—	—	(10,660)	—	(10,660)
Share-based compensation	—	—	—	—	4,768	—	—	4,768
Exercise of share options	—	—	(78,225)	105	(105)	—	—	—
Conversion of loan notes	40,020,280	145	—	—	(5,001)	—	12,081	7,225
Issuance of warrants	—	—	—	—	91	—	—	91
Balance, December 31, 2022	624,928,519	\$ 2,478	1,003,030	\$ (1,335)	\$ 476,521	\$ (21,687)	\$ (404,575)	\$ 51,402
Net loss	—	—	—	—	—	—	(29,466)	(29,466)
Foreign currency translation adjustments	—	—	—	—	—	4,202	—	4,202
Share-based compensation	—	—	—	—	4,924	—	—	4,924
Exercise of share options	—	—	(79,630)	105	(105)	—	—	—
Issuance of deferred restricted stock unit shares	501,380	3	—	—	—	—	—	3
Conversion of loan notes	27,420,095	108	—	—	(6,569)	—	14,411	7,950
Issuance of ordinary shares	48,367,095	186	—	—	11,284	—	—	11,470
Issuance of warrants	—	—	—	—	52	—	—	52
Balance, December 31, 2023	701,217,089	\$ 2,775	923,400	\$ (1,230)	\$ 486,107	\$ (17,485)	\$ (419,630)	\$ 50,537

The accompanying notes form an integral part of these consolidated financial statements.

MERO BIOPHARMA GROUP PLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of business

Mereo BioPharma Group plc (the “Company” or “Mereo”) is United Kingdom (“U.K.”) based biopharmaceutical company focused on the development of innovative therapeutics for rare diseases. The Company has developed a portfolio of late-stage clinical product candidates, and its two rare disease product candidates are setrusumab for the treatment of osteogenesis imperfecta (“OI”) and alvelestat primarily for the treatment of severe alpha-1 antitrypsin deficiency-associated lung disease (“AATD-LD”).

The Company is a public limited company incorporated and domiciled in the U.K., and registered in England, with shares publicly traded on the Nasdaq Capital Market via American Depositary Shares (“ADSs”) under the ticker symbol “MREO”. The Company’s registered office is located at Fourth Floor, 1 Cavendish Place, London, W1G 0QF, United Kingdom.

2. Basis of presentation and summary of significant accounting policies

Basis of presentation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) for annual financial reporting.

The consolidated financial statements are presented in U.S. dollars (“\$”), which is the reporting currency of the Company. The functional currency of the Company is pound sterling (“£”). The functional currency of consolidated subsidiaries are pound sterling and U.S. dollar. All amounts disclosed in the consolidated financial statements and notes have been rounded to the nearest thousand, unless otherwise stated.

At the end of the second quarter of 2023, the Company determined that it no longer qualified as a Foreign Private Issuer under SEC rules. As a result, beginning January 1, 2024, the Company was required to report with the SEC on domestic forms and comply with domestic company rules in the United States. The transition to U.S. GAAP was made retrospectively for all periods from the Company’s inception.

Going concern

The Company has prepared its financial statements on the basis that it will continue as a going concern. In accordance with the Financial Accounting Standards Board (“FASB”), Accounting Standards Update (“ASU”) 2014-15, Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern (Subtopic 205-40), the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern.

The Company is subject to risks common to companies in the biotechnology industry, including but not limited to, risks of delays in initiating or continuing research programs and clinical trials, risks of failure of preclinical studies and clinical trials, the need to obtain marketing approval for any drug product candidate that it may identify and develop, the need to successfully commercialize and gain market acceptance of its product candidates, if approved, dependence on key personnel and collaboration partners, protection of proprietary technology, compliance with government regulations, development by competitors of technological innovations, and the ability to secure additional capital to fund operations. Product candidates currently under development will require significant additional research and development efforts, including preclinical and clinical testing and regulatory approval prior to commercialization. Even if the Company’s research and development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

The Company has historically been loss making and anticipates that it will continue to incur losses for the foreseeable future and had an accumulated deficit of \$419.6 million as of December 31, 2023. The Company has funded these losses through a combination of public equity, private equity and debt financings, and it expects it will continue to do so until such time as it can generate significant revenue from product sales, or other commercial revenues, if ever, or through licensing and/or collaboration agreements for its rare disease or oncology product candidates. Although management continues to pursue these plans, there is no assurance that the Company will be successful in obtaining sufficient funding on terms acceptable to the Company to fund continuing operations, if at all.

Geopolitical events, including the ongoing global conflicts and increasing economic and political uncertainty have continued in 2023. This has led to significant increases in commodity prices, energy and fuel prices, credit and capital market instability

(particularly in the life sciences sector) and supply chain interruptions, all of which have contributed to increasing inflation and higher market interest rates. This may in turn adversely impact the Company's ability to deliver its goals. As of December 31, 2023, the Company had cash and cash equivalents of \$57.4 million. The Directors and Management have reviewed the financial projections of the Company for the 12 months subsequent to the date of filing of this Annual Report on Form 10-K including consideration of severe but plausible scenarios that may affect the Company in that period. The Company expects that its cash and cash equivalents as of December 31, 2023 will be sufficient to fund its operations and capital expenditure requirements for at least twelve months from the date of filing of this Annual Report on Form 10-K.

Basis of consolidation

The consolidated financial information comprises the financial statements of Mereo BioPharma Group plc and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated on consolidation.

The Company has an employee benefit trust ("EBT") to facilitate share transactions pursuant to employee share schemes. Although the trust is a separate legal entity from the Company, it is consolidated into the Company's results in accordance with the rules in ASC Topic 810, Consolidations ("ASC 810") on special purpose entities. The Company is deemed to control the trust principally because the trust cannot operate without the funding the Company provides.

Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting periods. Significant estimates and assumptions reflected in these financial statements include, but are not limited to, revenue recognition on contracts with customers and convertible loan notes. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results could differ from those estimates.

Segmental information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker in deciding how to allocate resources and assess performance. The Company and the Company's chief operating decision maker, the Company's Chief Executive Officer, view the Company's operations and manage its business as a single operating segment, which is the business of developing rare disease therapies; however, the Company operates in two geographic regions: the U.K. and the U.S. The Company's non-current assets are primarily located in the U.K. As of December 31, 2023, \$0.1 million (2022: \$0.1 million) of property and equipment are located in the U.S.

Concentration of credit risk and significant counterparties

The Company is dependent on a number of third parties for the delivery of its programs and, where required, pays upfront deposits and fees in advance of the delivery of services. The Company considers all of its material counterparties to be creditworthy and the credit risk for each of its major counterparties to be low, but continues to assess credit risk as part of its management of these third-party relationships. Financial instruments that subject the Company to credit risk consists primarily of cash and cash equivalents. The Company places cash and cash equivalents with established financial institutions with strong credit ratings. The Company's maximum exposure to credit risk for the components of the balance sheet of December 31, 2023 are the carrying amounts. The Company has no significant off-balance sheet risk or concentration of credit risk, such as foreign exchange contracts, options contracts, or other foreign hedging arrangements.

Revenue

The Company's ongoing major or central operations are the development of product candidates to key clinical milestones and either strategically partnering them or further developing such product candidates through regulatory approval and potentially commercialization. The Company may enter into a range of different agreements with third parties, including but not limited to: (i) licensing agreements where the global rights to a product candidate are licensed to a partner; and (ii) collaboration agreements where rights to a product candidate are licensed to a partner but the Company retains certain rights, for example to further develop or commercialize the product candidate in specified geographical territories. Under both licensing and collaboration agreements, rights to product candidates are provided to a partner typically in exchange for consideration in the form of upfront payments and/or development, regulatory, commercial or other similar milestones, and royalties on commercial sales, should regulatory approval be obtained for the product candidates.

The terms of these arrangements typically include payment to the Company of one or more of the following: nonrefundable, upfront license fees; payments for research and development services; fees upon the exercise of options to obtain additional services or licenses; payments based upon the achievement of defined collaboration objectives; future regulatory and sales-based milestone payments; and royalties on net sales of future products.

Where the Company has performed significant development activities for its product candidates, including the setrusumab and leflutroazole partnerships described in Note 14, receipts from agreements with third parties are considered to be proceeds derived from customers of the Company's ongoing major or central operations and therefore the Company recognizes revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers ("ASC 606").

When this is not the case and the third parties are not receiving outputs from the Company's ongoing or major central operations, such as in the Navicixizumab ("Navi") partnership described in Note 15, the third parties are not considered to be customers and the Company accounts for receipts from these agreements as other income in accordance with ASC Topic 610, Gains and Losses from the Derecognition of Non-financial Assets.

Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity 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 ASC 606, it 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 Company satisfies the performance obligations. The Company only applies the five-step model to contracts when it is probable that the entity will collect substantially all of the consideration it is entitled to in exchange for the goods or services it transfers to the customer. As part of the accounting for these arrangements, the Company must make significant judgments, including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each performance obligation.

Once a contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within the contract and determines those that are performance obligations. Arrangements that include rights to additional goods or services that are exercisable at a customer's discretion are generally considered options. The Company assesses if these options provide a material right to the customer and if so, they are considered performance obligations.

Performance obligations are promised goods or services in a contract to transfer a distinct good or service to the customer. The promised goods or services in the Company's contracts with customers primarily consist of license rights to the Company's intellectual property, research and development services and options to obtain additional licenses, such as a commercialization license for a potential product candidate. Promised goods or services are considered distinct when: (i) the customer can benefit from the good or service on its own or together with other readily available resources, and (ii) the promised good or service is separately identifiable from other promises in the contract. In assessing whether promised goods or services are distinct, the Company considers factors such as the stage of development of the underlying intellectual property, the capabilities of the collaboration partner to develop the intellectual property on their own and whether the required expertise is readily available. In addition, the Company considers whether the customer can benefit from a promise for its intended purpose without the receipt of the remaining promises, whether the value of the promise is dependent on the unsatisfied promises, whether there are other vendors that could provide the remaining promises, and whether it is separately identifiable from the remaining promises.

The Company estimates the transaction price based on the amount of consideration the Company expects to receive for transferring the promised goods or services in the contract. The consideration may include both fixed consideration and variable consideration. At the inception of each arrangement that includes variable consideration, the Company evaluates the amount of the potential payments and the likelihood that the payments will be received. The Company utilizes either the most likely amount method or expected value method to estimate variable consideration to include in the transaction price based on which method better predicts the amount of consideration expected to be received. The amount included in the transaction price is constrained to the amount for which it is probable that a significant reversal of cumulative revenue recognized will not occur. At the end of each subsequent reporting period, the Company reevaluates the estimated variable consideration included in the transaction price 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 in the period of adjustment. The initial transaction price of a contract does not include amounts associated with customer option payments.

After the transaction price is determined, it is allocated to the identified performance obligations based on the estimated standalone selling price. The Company must develop assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. The Company utilizes key assumptions to determine the standalone selling

price, which may include other comparable transactions, pricing considered in negotiating the transaction, probabilities of technical and regulatory success and the estimated costs. Based on the current agreements in effect, there is limited judgment in determining the revenue and transaction price. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts the Company would expect to receive for each performance obligation.

The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) each performance obligation is satisfied at a point in time or over time, and if over time, the facts and circumstances of each respective contract will be used to determine the revenue recognition pattern. The Company currently does not have any revenue that is being recognized over a time period.

Payments to third parties arising as a direct consequence of the revenue recognized are also recorded within cost of revenue in the Company's consolidated statements of operations and comprehensive loss.

License revenue

The Company has no approved product candidates and accordingly has not generated any revenue from commercial product sales. Revenue to date has been generated principally from licensing arrangements and collaboration agreements with a small number of the Company's customers.

If a license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from non-refundable, upfront fees allocated to the license at such time as the license is transferred to the licensee and the licensee is able to use, and benefit from, the license.

Contingent milestone payments

The Company's licensing arrangements and collaboration agreements may include development, regulatory and sales milestones. ASC 606 constrains the amount of variable consideration included in the transaction price in that either all, or a portion, of variable consideration should be included in the transaction price. The variable consideration should be included only 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. The Company evaluates the probability of the milestones being reached and estimates the amount to be included in the transaction price using the most likely amount method. The Company evaluates factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the particular milestone in making this assessment. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's control, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. At the end of each reporting period, the Company re-evaluates the probability of achievement of such milestones and any related constraints and, if necessary, adjusts the estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch up basis, which would affect revenue and net loss in the period of adjustment.

Research and development ("R&D") expenses

Research and development costs are expensed as incurred on an accruals basis in accordance with ASC Topic 730, Research and Development ("ASC 730") because they have no alternative future uses. These expenses are comprised of the costs of the Company's proprietary research and development efforts, including preclinical studies, clinical trials, manufacturing costs, employee salaries and benefits and share-based compensation expense, contract services including external research and development expenses incurred under arrangements with third parties such as contract research organizations ("CROs"), facilities costs, overhead costs and other related expenses. Intellectual property costs incurred on each drug candidate and costs associated with pre-commercial activities to support pricing and reimbursement by health technology assessment authorities and payor decision-makers in Europe are excluded from R&D expenses and are recognized within general and administrative expenses. Research and development costs that are paid in advance of performance are recorded as a prepaid expense and expensed over the service period as the services are provided. Accruals and prepayments for research and development expenses typically include fees and costs to be paid to CROs in relation to clinical trials and contract manufacturing organizations ("CMOs") in relation to the manufacture of drug substance and drug product. These accruals and prepayments are calculated each period based on regular review and challenge by the relevant program manager of the detailed activity analysis provided directly by CROs and CMOs to determine their completeness and accuracy.

Income taxes

The Company accounts for income taxes in accordance with ASC Topic 740, Income Taxes (“ASC 740”), using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the consolidated financial statements or in its tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that deferred tax assets will be recovered in the future to the extent management believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its current tax assets and liabilities on a net basis.

The Company accounts for uncertainty in income taxes by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position is evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed as the amount of benefit to recognize in the consolidated financial statements. The amount of benefits that may be used is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate, as well as the related net interest and penalties.

The Company recognizes interest related to unrecognized tax benefits within interest expense in the accompanying consolidated statements of operations and comprehensive loss. As of December 31, 2023 and 2022, no material accrued interest is included on the related tax liability line in the consolidated balance sheets.

U.K. R&D tax credit

The Company is subject to corporate taxation in the U.K. Due to the nature of the business, the Company has generated operating losses since inception. The benefit from R&D tax credits is recognized in the consolidated statements of operations and comprehensive loss, and represents the research and development tax credits recoverable in the U.K.

The U.K. R&D tax credit is fully refundable to the Company and is not dependent on current or future taxable income. As a result, the Company has recorded the entire benefit from the U.K. R&D tax credit as a benefit which is included in net loss before income tax and, accordingly, not reflected it as part of the income tax provision. If, in the future, any U.K. R&D tax credits generated are needed to offset a corporate income tax liability in the U.K., the relevant portion would be recorded as a benefit within the income tax provision and any refundable portion not dependent on taxable income would continue to be recorded within the benefit from research and development tax credit in the consolidated statement of operations and comprehensive loss.

As a company that carries out extensive R&D activities, it benefits from the U.K. HM Revenue and Customs (“HMRC”) small and medium sized enterprises research and development relief, or SME R&D Relief, which provides relief against U.K. Corporation Tax and enables it to surrender some of its trading losses that arise from its research and development activities for a cash rebate. To date, a cash rebate of up to 33.35% of eligible R&D expenditure has been available, but the cash rebate reduced to a maximum of 27% for R&D intensive companies where at least 40% of their total expenditure is on qualifying R&D, or to 18.6% of eligible R&D expenditure for other companies, with effect from April 1, 2023 pursuant to changes made by the Finance Act 2023. Certain subcontracted qualifying research expenditures are eligible for a cash rebate though the rate of the cash rebate also reduced with effect from April 1, 2023, from up to 21.67% of the subcontracted expenditures to 17.53% for R&D intensive companies or 12.09% for other companies. The difference in cash rebate for qualifying subcontracted expenditure vs. other qualifying expenditure is due to a statutory restriction of 65% being applied to unconnected qualifying subcontracted expenditure, thus restricting the benefit available.

The Company may not be able to continue to claim payable R&D tax credits in the future because it may no longer qualify as a small or medium sized company. In that case, the Company would expect to benefit from the taxable credit for qualifying R&D expenditure under the R&D Expenditure Credit (RDEC) scheme available to large companies which may be either offset against corporation tax liabilities or paid net of tax as a cash credit where there is no liability in the future. Expenditure subcontracted to other companies is not however a qualifying cost under the RDEC scheme. Subcontracted expenditure however is in most cases not a qualifying cost under the current RDEC scheme but is expected to be a qualifying cost (unless it relates to non-qualifying costs

subcontracted overseas) under the new merged RDEC scheme, that will come into force for accounting periods beginning on or after April 1, 2024.

In the event the Company generates revenues in the future, it may also 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 following election into the regime. When taken in combination with the enhanced relief available on our R&D expenditures, the Company expects a long-term lower rate of corporation tax to apply to it. 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 it is unable to qualify for such advantageous tax legislation, or it is unable to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments, the Company's business, results of operations, and financial condition may be adversely affected. In particular, HM Treasury and HMRC launched a consultation in January 2023 entitled “R&D Tax Reliefs Review, Consultation on a single scheme” which seeks views on the possible merger of the SME R&D Relief scheme and the RDEC scheme applicable to large companies, the outcome of which may be further changes to the reliefs available. If it is decided to merge the schemes, any new regime is expected to apply with effect from April 1, 2024.

Foreign currencies

The Company maintains its consolidated financial statements in its functional currency, which is pound sterling. This is also the functional currency of the wholly-owned subsidiaries which are consolidated, with the exception of Mereo BioPharma 5, which has U.S dollars as its functional currency. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at rates of exchange prevailing at the balance sheet dates. Non-monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the date of the transaction. Exchange gains or losses arising from foreign currency transactions are included in the consolidated statements of operations and comprehensive loss.

For financial reporting purposes, the consolidated financial statements of the Company have been presented in U.S. dollars, the reporting currency. The financial statements of entities are translated from their functional currency into U.S. dollars as follows: assets and liabilities are translated at the exchange rates at the balance sheet dates, revenue, operating expenses and other income/ (expense), net are translated at the average exchange rates for the periods presented, and shareholders' equity is translated at the prevailing historical exchange rates. Translation adjustments are not included in determining net loss but are included as a foreign exchange adjustment to other comprehensive income, a component of shareholders' equity.

Property and equipment

Property 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 equipment if the recognition criteria are met. All other repair and maintenance costs are recognized in profit or loss as incurred.

Depreciation is computed using the straight-line method over the estimated useful lives of the related assets. Useful lives of various property and equipment are as follows:

- Leasehold improvements shorter of lease term or ten years
- Office equipment five years
- IT equipment three years

Property and equipment 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 consolidated statement of operations and comprehensive loss when the asset is derecognized.

The residual values, useful lives and methods of depreciation of property, plant and equipment are reviewed annually and adjusted prospectively, if appropriate.

Leases

Leases are accounted for under ASC Topic 842, Leases (“ASC 842”). The Company only has operating leases. The Company assesses whether a contract is, or contains, a lease at inception of the contract. The Company recognizes a right-of-use (“ROU”) asset and a corresponding liability with respect to all lease arrangements in which it is a lessee. ROU assets and liabilities are recognized at the commencement date based on the present value of remaining lease payments. For this purpose, the Company considers only payments that are fixed and determinable at the time of commencement.

As the Company's leases do not provide an implicit rate, the Company determines the incremental borrowing rate in calculating the present value of lease payments. The ROU assets also include any lease payments made prior to commencement and are recorded net of any lease incentives received.

The Company's lease terms may include options to extend or terminate the lease. When it is reasonably certain the Company will exercise such options the term of the lease will be amended and the ROU asset and corresponding liability will be measured based on inclusion the option term. The Company accounts for lease and non-lease components separately. The non-lease components are service and maintenance charges and are accounted for separately. There are no variable lease costs associated with the current leases.

Operating leases are included in right-of-use assets and in current and non-current operating lease liabilities on the Company's consolidated balance sheets.

Lease expense for lease payments is considered operating lease costs and is recognized on a straight-line basis over the lease term. The lease terms for the underlying assets is as follows:

- Right-of-use asset (building) six to nine years
- Right-of-use asset (equipment) one to two years

Intangible assets

Identifiable intangible assets within the scope of ASC 730 that are purchased from others for a particular research and development project outside of a business combination, and that have no alternative future uses are expensed as incurred.

Intangible assets that have an alternative future use, or which are outside the scope of ASC 730, are accounted for under ASC Topic 350, Intangibles – Goodwill and Other (“ASC 350”) and are initially recorded at cost, which is the fair value of the consideration paid on the acquisition date. Consideration that is contingent on future events is included in the cost of the asset only when the contingency is resolved and the consideration is issued or becomes issuable.

Assets that have been acquired in a business combination are initially recorded at fair value.

Intangible assets are amortized over their estimated useful economic life from the date they are available for use and are recognized in general and administrative expenses. An intangible asset is derecognized on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.

Financial instruments

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, certain accrued expenses, contingent consideration, warrant liabilities and the liability components of convertible loan notes and other financing arrangements. Cash, cash equivalents, accounts receivable, accounts payable and accrued expenses are initially recorded and subsequently measured at cost, which is considered to approximate their fair value due to the short-term nature of such financial instruments. The carrying value of warrant liabilities and convertible loan notes is explained in the sections below.

Embedded derivatives

The Company reviews the terms of convertible loan notes and other hybrid financing arrangements to determine whether there are embedded derivative instruments, including conversion options that are required to be bifurcated and accounted for separately either as a derivative financial instrument or an equity instrument.

Derivative financial instruments are initially measured at fair value, and then re-valued at each reporting date, with changes in the fair value reported in the consolidated statements of operations and comprehensive loss as a component of net income.

The discount from face value of the liability component remaining from allocating some or all of the proceeds of the hybrid instrument to the derivative, together with the stated rate of interest on the instrument, is amortized over the life of the instrument through periodic charges to consolidated statements of operations and comprehensive loss, using the effective interest method. Embedded derivatives that are bifurcated and recognized as liability instruments are presented in a separate line in the balance sheets.

Embedded derivative instruments that meet the criteria of equity instruments under ASC Topic 815-40, Contracts in Entity's Own Equity (*Subtopic 815-40*) are initially recognized within additional paid-in capital at an amount determined by allocating the proceeds between the debt and equity components based on their relative fair values.

Convertible loan notes

Convertible loan notes are accounted for in accordance with ASC Topic 470-20, Debt with Conversion and Other Options as amended by ASU 2020-06, Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40) which the Company early adopted on January 1, 2021 on a fully retrospective basis.

As described in Note 11, the Company issued two hybrid financial instruments in 2020; the Novartis Loan Note and the Private Placement Loan Notes, which both included multiple instruments, including convertible loan notes and warrants. For both hybrid financial instruments, pursuant to ASC Subtopic 470-20, the Company separately accounted for the liability component of the convertible loan notes, the embedded conversion option and the warrants.

In the case of the Novartis Loan Note, both the conversion option and the warrants were separately accounted for as equity instruments upon issuance. The conversion option and warrants are accounted for as equity instruments as they met the requirements to be considered indexed to the Company's own shares under Subtopic 815-40.

In the case of the Private Placement Loan Notes, both the conversion option and the warrants were initially separately accounted for as derivative instruments under ASC 815, however upon the passing of certain resolutions of the Company's shareholders on June 30, 2020, the classification of the conversion option was reassessed and reclassified as an equity instrument. The warrants continued to be separately accounted for as derivative liabilities.

Consideration received for hybrid financial instruments containing convertible debt is initially allocated to the fair value of separately recognized derivative instruments that will be subsequently remeasured at fair value under ASC 815, including the warrants issued with the Private Placement Loan Notes. The remaining consideration is allocated to the liability portion of the convertible loan notes and any other separately recognized equity instruments, such as the embedded conversion option, based on the relative fair value of each instrument.

Where none of the embedded derivatives are required to be subsequently remeasured at fair value, including the Novartis Loan Note, the consideration is allocated to all elements based on the relative fair value of each instrument. As the conversion option in the Novartis Loan Note is classified as an equity instrument, it qualifies for the scope exception for contracts indexed to the Company's own equity and as such is allocated to additional paid-in capital and accounted for at the initial recognition amount.

Changes to the terms of convertible loan notes are evaluated to determine whether they constitute an extinguishment or modification. Changes are accounted for as an extinguishment if:

- (a) they cause the present value of the cash flows under the terms of the new debt instrument to be at least 10% different from the present value of the remaining cash flows under the terms of the original instrument; or
- (b) they change the fair value of the embedded conversion option by more than 10% of the carrying amount of the original debt instrument immediately before the modification; or
- (c) they add a substantive conversion option or eliminate a conversion option that was substantive at the date of the modification or exchange.

Where changes are extinguishments, the liability component is derecognized and new component recognized in the same way as described above on initial recognition. The difference between the carrying value of the original debt and the fair value of the new

component will be recognized as an extinguishment gain or loss. In the current year no extinguishment gain or loss is recognized in the consolidated statements of operations and comprehensive loss.

Where changes are modifications, the carrying value of the liability component is adjusted to the present value of the modified cash flows discounted at the original effective interest rate, net of identifiable transaction costs, with the difference recognized by accreting the new carrying value to its face value using a revised effective interest rate and the accretion recognized in interest income. If the conversion option had previously been classified as a financial liability, but had been reclassified to equity (as was the case with the Private Placement Loan Notes) the carrying value of the liability is also adjusted to reflect any increase (but not decrease) in the fair value of the embedded, un-separated, conversion option with a corresponding adjustment to additional paid-in capital. The revised carrying value is accreted to the value of the principal plus accrued interest payable at maturity using the new effective interest rate.

Upon any conversion of the convertible loan notes in accordance with the conversion privileges provided in the terms of the instrument, the carrying value is adjusted for any unamortized capitalized transaction costs, which are recognized within interest expense. The carrying value is reduced by the cash consideration received and any excess or deficit after recognizing the nominal value of the ordinary shares issued is recognized within additional paid-in capital.

Warrant liabilities

The Company issued warrants as part of a private placement transaction on June 30, 2020 and to its previous lenders pursuant to the terms of its loan facility in August 2017 and October 2018. The private placement warrants expired in June 2023.

The warrants were classified as liabilities as they included provisions that could require cash settlement. The warrant instruments are recorded at fair value, with changes in the fair value recognized in the consolidated statements of operations and comprehensive loss as a component of net loss, where the terms of the warrant instruments allow for cashless exercise.

Equity classified warrants

The Company has issued the following equity classified warrants:

- Warrants issued in conjunction with the Novartis Loan Note in 2020. The value allocated to these warrants was recognized in equity at issuance as described above.
- In October 2018, the Group entered into a funding agreement with The Alpha-1 Project (“TAP”), which provided for total payments of \$0.4 million, of which the final installment of \$0.1 million was received in May 2023. In exchange for funding, the Company issued warrants allowing TAP to subscribe for ordinary shares in the Company. Under the agreement, TAP is potentially entitled to receive a payment equivalent to the amounts received by Mereo (up to a maximum of \$0.4 million) conditional on and within thirty days of the first regulatory approval for alvelestat. The agreement is accounted for as a compound instrument that includes both debt and equity components with the carrying value of each component established based on the relative fair value of each component. The amount allocated to the liability component is accreted back to the face value over the period to the earliest reasonable repayment date using the effective interest method. The amount allocated to the warrants was recognized in additional paid-in capital and is not subsequently remeasured.

Fair value measurement

The Company follows the guidance in ASC Topic 820, Fair Value Measurements and Disclosures (“ASC 820”) which defines fair value and establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value.

The Company 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 consolidated 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 consolidated financial statements on a recurring basis, the Company 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. There were no transfers within the fair value hierarchy during the years ended December 31, 2023 and 2022.

Cash and cash equivalents

Cash and cash equivalents in the consolidated balance sheets comprise cash at banks along with short-term deposits with a maturity of three months or less.

Share-based compensation

Employees (including executives) and non-executive directors of the Company receive remuneration in the form of share-based compensation, whereby employees and non-executive directors render services as consideration for equity instruments (equity settled transactions). Incentives in the form of ADSs are provided to employees and non-executive directors under various plans.

In accordance with ASC Topic 718, Stock Compensation (“ASC 718”), the total amounts to be expensed for these incentives are expensed through the consolidated statements of operations and comprehensive loss and are measured based on the grant-date fair value of the awards and recognized over the period during which the employee or non-executive director is required to perform services in exchange for the award (generally the vesting period of the award).

In accordance with ASC 718, 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 recorded in future accounting periods is recognized immediately. The Company has elected to recognize the effect of forfeitures on share-based compensation when they occur. Any differences in compensation recognized at the time of forfeiture are recorded as a cumulative adjustment in the period in which the forfeiture occurs.

Treasury shares

The EBT holds ADSs as treasury shares to satisfy the exercise of options under the Company’s share-based incentive schemes. The EBT is a Jersey-based trust which was initially funded by a loan from the Company, which it utilized to purchase shares in sufficient quantity to fulfill the envisaged awards. In accordance with ASC Topic 505, Equity (“ASC 505”), these shares will be deducted from ordinary shares on the consolidated balance sheet at their nominal value. Shares held by the EBT are included in the consolidated balance sheets as a reduction in additional paid-in capital.

Comprehensive income/(loss)

Comprehensive income/(loss) includes net income/(loss) as well as other changes in shareholders’ equity that result from transactions and economic events other than those with shareholders. The Company records unrealized gains and losses related to foreign currency translation as a component of other comprehensive loss in the consolidated statements of operations and comprehensive loss.

Ordinary shares

Ordinary shares are classified in shareholders’ equity and represent issued share capital.

Additional paid-in capital

Additional paid-in capital is classified in shareholders’ equity and includes the difference between the price paid per share and the nominal value. The equity element of share-based compensation is also recognized in additional paid-in capital as are derivative instruments that meet the requirements for equity classification.

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 additional paid-in capital 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.

Net income/(loss) per share

Basic net income/(loss) per share is computed by dividing the net income/(loss) attributable to ordinary shareholders by the weighted-average number of ordinary shares outstanding for the reporting period without consideration for potentially dilutive securities. Net income/(loss) attributable to ordinary shareholders is computed as if all net income/(loss) for the period had been distributed. During periods in which the Company incurred a net loss, the Company allocates no net loss to participating securities because they do not have a contractual obligation to share in the net loss of the Company.

The Company computes diluted net income/(loss) per ordinary share after giving consideration to all potentially dilutive ordinary equivalents, including share options outstanding during the period, except where the effect of such non-participating securities would be antidilutive.

Diluted net income/(loss) per share is computed by dividing the net income/(loss) attributable to ordinary shareholders by the weighted average number of ordinary shares and dilutive ordinary share equivalents outstanding for the period, determined using the treasury stock and if-converted methods.

3. Recent accounting pronouncements

In November 2023, the FASB issued ASU 2023-07, Improvements to Reportable Segment Disclosures. The amendments require incremental disclosures related to a public entity's reportable segments but does not change the definition of a segment, the method for determining segments, or the criteria for aggregating operating segments into reportable segments. The biggest change in the ASU is the requirement for a public entity to disclose its significant segment expense categories and amounts for each reportable segment.

In December 2023, the FASB issued ASU 2023-09, Improvements to Income Tax disclosures. The standard requires disaggregated information about a reporting entity's effective tax rate reconciliation as well as information on income taxes paid.

The key provisions under effective tax rate reconciliations are as follows:

- The ASU requires public business entities, on an annual basis, to provide a tabular rate reconciliation (using both percentages and reporting currency amounts) of the reported income tax expense (or benefit) from continuing operations, to the product of the income (or loss) from continuing operations before income taxes and the applicable statutory federal income tax rate of the country of domicile using specific categories, and;
- Separate disclosure for any reconciling items within certain categories that are equal to or greater than a specified quantitative threshold. The quantitative threshold for the designated categories requiring further disaggregation is 5%.

The key provisions under income taxes paid are as follows:

- The ASU requires all reporting entities to disclose the year-to-date amount of income taxes paid (net of refunds received) disaggregated by federal, state, and foreign; and
- It also requires additional disaggregated information on income taxes paid (net of refunds received) to an individual jurisdiction equal to or greater than 5% of total income taxes paid (net of refunds received). An entity may identify a country, state, or local territory as an individual jurisdiction.

ASU 2023-07 is effective for fiscal periods beginning after December 15, 2023 and ASU 2023-09 is effective for fiscal periods beginning after December 15, 2024. We are currently evaluating the impact of the adoption of these ASU's on our consolidated financial statements, but do not believe the adoption of these standards will have a material impact on our consolidated financial statements.

In March 2024, the SEC adopted final rules under SEC Release No. 33-11275, The Enhancement and Standardization of Climate-Related Disclosures for Investors, which requires registrants to provide certain climate-related information in their registration statements and annual reports. As it pertains to the financial statements, the final rules require the financial statement footnotes to include certain disclosures regarding the amounts of expenses (or capitalized costs) incurred that relate to severe

weather events and other natural conditions, as well as other disclosures regarding the material impact on financial estimates and assumptions of severe weather events and other natural conditions or disclosed targets or transition plans. It also requires disclosure of financial statements amounts related to carbon offsets and renewable energy credits. The disclosures will be required at the earliest in the annual financial statements for the year ended December 31, 2025 (or potentially later depending on the company's filer status at the time). The company is currently evaluating the impact of this on its consolidated financial statements.

Other accounting standards that have been issued with the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company's consolidated financial statements upon adoption.

4. Fair value measurement

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, certain accrued expenses, contingent consideration, warrant liability and convertible loan notes. The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate their fair value due to the short-term nature of those financial instruments.

The following table summarizes the Company's financial assets and liabilities measured at fair value on a recurring basis and classified under the appropriate level of the fair value hierarchy as described above:

	Total (\$'000)	As at December 31, 2023		Level 3 (\$'000)
		Level 1 (\$'000)	Level 2 (\$'000)	
Financial liabilities				
Warrant liabilities	412	—	412	—
CVR liability	—	—	—	—

	Total (\$'000)	As at December 31, 2022		Level 3 (\$'000)
		Level 1 (\$'000)	Level 2 (\$'000)	
Financial liabilities				
Warrant liabilities	643	—	157	486
CVR liability	—	—	—	—

There were no transfers between Level 1 and Level 2 during the years ended December 31, 2023 and 2022.

Contingent Value Rights Agreement Liability ("CVR liability")

In 2019, the Company acquired OncoMed and subsequently renamed it Mereo BioPharma 5, Inc. The Company makes a provision for the estimated fair value of amounts payable to the former shareholders of Mereo BioPharma 5, Inc. under a Contingent Value Rights Agreement ("CVR"), established at the time of the acquisition of Mereo BioPharma 5, Inc which is accounted for as a contingent consideration liability. The CVR will expire on April 23, 2024.

At December 31, 2023 and 2022, the Company estimates the fair value of the liability for its obligations under the CVR to be \$nil (2022: \$nil). Total potential payments under the CVR on a gross, undiscounted basis, are approximately \$80 million.

The CVR liability is estimated based on a risk-adjusted, probability-based scenario. Under this approach the likelihood of future payments being made to the former shareholders of Mereo BioPharma 5, Inc. under the CVR is considered. The estimate could materially change over time in line with the development plan and potential subsequent commercialization of the product. These rights are contingent upon achieving certain milestones relating to two product candidates: etigilimab ("TIGIT") and Navi. If the achievements are not met by April 2024, the agreement will expire. The CVR liability was \$nil throughout both 2022 and 2023.

The following table presents the changes in material Level 3 items for the years ended December 31, 2023 and December 31, 2022.

	Warrant liabilities (\$'000)
January 1, 2022	11,276
Change in fair value	(9,607)
Foreign exchange	(1,026)
December 31, 2022	<u>\$ 643</u>
Change in fair value	(245)
Foreign exchange	14
December 31, 2023	<u>\$ 412</u>

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, 2023 and 2022 are as follows:

	Valuation technique	Significant unobservable inputs	Input range	Sensitivity of the input to fair value
Warrant liability related to the private placement warrants	Black- Scholes model	Expected volatility	2023: n/a 2022: 95.5%	The warrants expired in June 2023, therefore the fair value at December 31, 2023 was \$nil
CVR liability	Discounted cash flow	Ongoing uncertainty in the clinical development of the Navi product		Total potential future payments relating to the contingent consideration liability on a gross, undiscounted basis are approximately \$80 million. However, the agreement expires in April 2024. If none of the milestones are achieved, then no further payments will be required.
		Regulatory approval and commercialization risks		Sensitivity of the input to fair value is primarily driven by uncertainty in the clinical development of the Navi product. Future potential payments under the CVR arrangement are contingent on i) future development milestones and ii) future sales of the Navi product, following regulatory approval and commercialization. In January 2020, the Company entered into the license agreement. Although pursuant to the license agreement the Company is entitled to additional payments of up to \$302 million, there continues to be no expectation of any milestone or royalty payments under the license agreement before the CVR arrangement expires in April 2024.

5. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following:

	December 31,	
	2023	2022
	(\$'000)	(\$'000)
VAT receivable	\$ 599	\$ 438
Prepaid research and development services	632	2,348
Other taxes receivable	—	741
Insurance claim receivable	1,950	—
Security deposits	615	485
Other prepaid expense and current assets	1,360	1,434
Total	<u>\$ 5,156</u>	<u>\$ 5,446</u>

6. Property and equipment, net

Property and equipment, net consists of the following:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Leasehold improvements	\$ 710	\$ 675
Office equipment	199	190
IT equipment	296	422
Property and equipment, at cost	1,205	1,287
Less: accumulated depreciation	(800)	(736)
Property and equipment, net	\$ 405	\$ 551

Depreciation expense for the year ended December 31, 2023 was \$0.2 million (2022: \$0.2 million).

7. Intangible assets

Intangible assets consists of the following:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
License	\$ 1,485	\$ —
Less: accumulated amortization	(396)	—
Intangible asset, net	\$ 1,089	\$ —

In 2023, the Company acquired an intangible asset of \$1.5 million related to a license agreement. Corresponding deferred consideration liabilities totaling \$1.5 million were also recognized in other current and other non-current liabilities. The license is amortized on a straight-line basis over its useful economic life.

8. Leases

In August 2015, Mereo entered into a lease agreement under which the Company leased office space located on the fourth floor of One Cavendish Place, London, with a lease term ending in August 2025. In June 2021, the Company entered into a new lease agreement to lease additional office space located on the fifth floor of that building for a lease period ending in June 2026. At the same time, the Company entered into a revisionary lease to extend the term for the original fourth floor lease to be co-terminus with the fifth floor, ending in June 2026.

In August 2022, the Company's lease for office space in Redwood City, California expired, and certain equipment was disposed. In the year-ended December 31, 2023, the Company made lease payments of \$0.8 million (2022: \$1.2 million) and total lease expenses included in the statements of operations and comprehensive loss were \$0.7 million (2022: \$0.9 million). There were no material variable lease costs. The amount of operating right of use assets recognized was \$1.2 million in the year ended December 31, 2023 (2022: \$1.7 million). Amortization of the right of use assets recognized in the statements of operations and comprehensive loss was \$0.5 million in the year ended December 31, 2023 (2022: \$0.7 million).

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Operating leases		
Weighted-average remaining contractual lease term (years)	2.50	3.50
Weighted average discount rate	10.0%	10.0%

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 759	\$ 1,153

	Year ended December 31, 2023	
	(\$'000)	
Maturity analysis of the operating lease liabilities for the years ending December 31,		
2024	\$	778
2025		778
2026		191
2027		—
2028		—
Thereafter		—
Total undiscounted payments		1,747
Less: Present value discount		(189)
Lease liability	\$	1,558
Lease liability - current	\$	652
Lease liability - non current	\$	906

9. Other current liabilities

Other current liabilities consists of the following:

	December 31,	
	2023	2022
	(\$'000)	(\$'000)
Social security and other taxes	\$ 280	\$ 202
Tax payable	—	—
Deferred consideration liability	711	—
Other current liabilities	30	869
Total	\$ 1,021	\$ 1,071

10. Accrued expenses

Accrued expenses consist of the following:

	December 31,	
	2023	2022
	(\$'000)	(\$'000)
Accrued research and development costs	\$ 1,821	\$ 2,336
Accrued legal fees	266	132
Accrued bonus	1,624	1,863
Accrued audit fees	671	382
Accrued professional fees	338	183
Accrued local taxes	382	—
Other accrued expenses	365	540
Total	\$ 5,467	\$ 5,436

11. Convertible loan notes

Novartis Loan Note

On February 10, 2020, the Company entered into a convertible equity financing with Novartis Pharma (AG) (“Novartis”) under which Novartis purchased a £3.8 million (\$5.2 million) convertible loan note (the “Novartis Loan Note”). The Novartis Loan Note is convertible at the discretion of the holder, at a fixed price of £0.265 (\$0.360) per ordinary share and originally bore interest at 6% per annum with a maturity date of February 10, 2023. In connection with the Novartis Loan Note, the Company also issued 1,449,614 warrants which are exercisable until February 2025 at an exercise price of £0.265 (\$0.360) per ordinary share. These warrants were recognized separately as equity instruments (see note 12).

Effective February 10, 2023, the maturity date of the Novartis Loan Note was extended to February 10, 2025 and the interest rate amended to 9%. Interest accrued to the amendment date of \$0.9 million was paid in cash, and additional warrants to purchase 2,000,000 ordinary shares were issued. These warrants were also recognized separately as equity instruments.

The amendments to the Novartis Loan Note were an extinguishment of the original instrument and the issuance of a new one. Accordingly, on the extinguishment date, the carrying value of \$5.5 million was derecognized. At the same time, a new liability of \$4.2 million was recognized, which represents the portion of the consideration of the new arrangement allocated to the liability component of the new Novartis Loan Note on the basis of its relative fair value, net of fees. The remaining amount was allocated between the \$0.8 million of interest paid in cash and the residual \$0.5 million which was recorded in additional paid-in capital to reflect the relative fair value of the warrants and the conversion option embedded in the new Novartis Loan Note. No extinguishment gain or loss was recognized in the consolidated statements of operations and comprehensive loss. The Company recognized interest expense of \$1.0 million in relation to the Novartis Loan Note in the consolidated statements of operations and comprehensive loss for the year ended December 31, 2023 (2022: \$1.5 million). The effective interest rate applied to the liability portion of the Novartis Loan Note in 2023 after the amendments was 27.8% while the effective interest rate applied in 2023 prior to the amendments and in 2022 was 37.4%.

As of December 31, 2023, and 2022, the net carrying amount of the liability component of the convertible debt instrument was \$4.6 million and \$5.7 million, respectively. The fair value was \$3.1 million (2022: \$3.7 million).

Private Placement Loan Notes

The Private Placement Loan Notes were issued in 2020 as part of a \$70.0 million private placement transaction which also included the issuance of ordinary shares and warrants (see Note 12). As of January 1, 2022, Private Placement Loan Notes with an aggregate principal of £12.4 million (\$9.2 million) were still outstanding and were convertible at a fixed price of £0.174 per ordinary share. The Private Placement Loan Notes bore interest at a rate of 6% per annum and had a maturity date of June 3, 2023.

During the year ended December 31, 2022, the Company issued and allotted 40,020,280 ordinary shares at a price of £0.174 per share on non-cash conversion of Private Placement Loan Notes with an aggregate principal amount of \$7.5 million. On conversion, \$0.2 million of unamortized transaction costs were recognized within interest expense.

In May 2023, the maturity date of the Private Placement Loan Notes was extended to August 3, 2023, with all other terms remaining unchanged. This extension was a modification and the carrying value of the liability component was adjusted to the present value of the modified cash flows discounted at the original effective interest rate, net of identifiable transaction costs. The carrying value was also reduced by \$0.6 million with a corresponding adjustment to additional paid-in capital to reflect the increase in the fair value of the embedded conversion option.

In May and July 2023, the Company received conversion notices and subsequently issued and allotted 17,774,895 and 9,645,200 ordinary shares respectively, both at a price of £0.174 per share on non-cash conversion of Private Placement Loan Notes with an aggregate principal amount of \$4.6 million.

In August 2023, the Company paid \$3.2 million to fully settle the outstanding principal and accrued interest balance on the remaining Private Placement Loan Notes.

The Company recognized interest expense of \$1.6 million in relation to the Private Placement Loan Notes in the consolidated statements of operations and comprehensive loss for the year ended December 31, 2023. The effective interest rate applied to the liability portion of the Private Placement Loan Notes in 2023 after the amendments was 27.1% while the effective interest rate applied in 2023 prior to the amendments and in 2022 was 25.1%.

As of December 31, 2023 the net carrying amount of the convertible debt instrument was \$nil (2022: \$8.4 million) with unamortized debt discount and issuance costs of \$nil (2022: \$0.1 million). The fair value as of December 31, 2022 was \$5.7 million).

12. Warrant liability

	December 31,	
	2023	2022
	(\$'000)	(\$'000)
At January 1	\$ 643	\$ 11,276
Fair value changes during the year	(245)	(9,607)
Foreign exchange	14	(1,026)
At December 31	\$ 412	\$ 643

The change in fair value of the warrant liability represents an unrealized gain in the years ended December 31, 2023 and 2022.

Warrant liability – private placement

As a part of a private placement transaction on June 3, 2020, the participating investors received conditional warrants entitling them to subscribe for an aggregate of 161,048,366 ordinary shares in the Company at an exercise price of £0.348 (\$0.443) per warrant and were exercisable until June 2023 when they expired. The warrants were classified as liabilities as the Company did not have an unconditional right to avoid redeeming the instruments for cash. As the warrants expired during the period, the fair value of the warrant liability was \$nil as of December 31, 2023 (2022 \$0.5 million). The change in the fair value of \$0.5 million was recognized as a gain in the consolidated statements of operations and comprehensive loss. In the year ended December 31, 2023 no warrants were exercised.

Warrant liability – bank loan

As of December 31, 2023, the former lenders of the Company have warrants outstanding to purchase a total of 1,243,908 ordinary shares at an exercise price of £2.95 per share (\$3.76 per share), exercisable until August 2027 and a total of 1,243,908 ordinary shares at an exercise price of \$0.4144 per share, exercisable until August 2027 to October 2028.

As of December 31, 2023, the fair value of these warrants was \$ 0.4 million (2022: \$ 0.2 million). The change in the fair value of \$0.3 million was recognized as a gain in the consolidated statements of operations and comprehensive loss. There were no warrants exercised during the year ended December 31, 2023 (2022: nil).

Total outstanding warrants

As of December 31, 2023, a total of 2,487,816 warrants are outstanding (2022: 147,431,351). The warrants outstanding are equivalent to 0.4% of the issued ordinary share capital of the Company (2022: 24%).

The following table lists the weighted average inputs to the models used for the fair value of warrants:

	December 31,	
	2023	2022
Expected volatility (%)	102	95
Risk-free interest rate (%)	3.36	3.99
Expected life of warrants (years)	5.2	0.5
Market price of ADS (\$)	2.31	0.75
Model used	Black-Scholes	Black-Scholes

13. Shareholders' Equity

Common Shares

	Number of ordinary shares	Cost (\$'000)
At December 31, 2021	584,908,239	2,333
Issued during the year	40,020,280	145
At December 31, 2022	<u>624,928,519</u>	<u>2,478</u>
Issued during the year	48,367,095	186
Conversion of convertible loan notes	27,420,095	108
Vesting of deferred restricted stock units	501,380	3
At December 31, 2023	<u>701,217,089</u>	<u>2,775</u>

During the year ended December 31, 2022, the Company issued and allotted 40,020,280 ordinary shares of £0.003 in nominal value in the capital of the Company at an exercise price of £0.174 per share on non-cash conversion of loan notes.

During the year ended December 31, 2023, Private Placement Loan Notes with a carrying value of \$7.5 million were converted into 27,420,095 ordinary shares at a conversion price of £0.174 per ordinary share.

In July 2023, 9,673,419 ADSs representing 48,367,095 ordinary shares were issued for aggregate gross proceeds of \$12.0 million through an “at-the-market” offering pursuant to an Open Market Sale Agreement with Jefferies LLC.

During the year ended December 31, 2023, 501,380 ordinary shares were issued upon satisfaction of deferred restricted stock units.

14. Revenue and Cost of revenue

Ultragenyx Partnership

On January 25, 2021, the Company’s license and collaboration agreement with Ultragenyx for the development and commercialization of setrusumab for OI became effective. Under the terms of the agreement, the Company received an upfront payment of \$50 million and was eligible to receive up to \$254 million in development, regulatory and commercial milestones and tiered double digit percentage royalties on net sales outside of Europe and pay a fixed double digit percentage royalty to Ultragenyx on net sales in Europe. The license and collaboration agreement grants Ultragenyx an exclusive license to develop and commercialize setrusumab in the US and rest of the world, excluding Europe where the Company retains commercial rights.

Two distinct performance obligations were identified as part of the license and collaboration agreement: (i) a promise to grant the license to develop and commercialize setrusumab, and (ii) provision of subsequent clinical supply of setrusumab.

In the year ended December 31, 2023, the Company recognized milestone proceeds of \$9 million as revenue under the license and collaboration agreement with Ultragenyx for setrusumab following achievement of a development milestone. The milestone payments constitute a change in transaction price for the Ultragenyx agreement, to which revenue was first recorded in the year ended December 31, 2021. Pursuant to the terms of the agreement, the Company is entitled to receive milestone payments from Ultragenyx upon achievement of certain development, regulatory and sales based milestones. The variable consideration relating to future milestones and sales royalties are recognized in the statement of comprehensive income when achievement of the milestones are probable or the underlying commercial sales are made, in the event regulatory approval is achieved. No revenues were recognized in respect of this agreement in the year ended December 31, 2022.

As a consequence of the milestone received by the Company under the license and collaboration agreement with Ultragenyx, and in accordance with the terms of the 2015 asset purchase agreement with Novartis which requires payment of a percentage of the proceeds received, subject to certain deductions, the Company also recognized cost of revenue of \$2.4 million.

In 2021, the Company received a \$50.0 million upfront payment from Ultragenyx which triggered a \$13.3 million obligation to Novartis under our 2015 agreement with them. An amount of \$3.3 million was deferred from this obligation to reflect future costs that were expected to be incurred. Accordingly, the Company recognized cost of revenue of \$13.3 million to reflect both the \$10.0 million payment made to Novartis and the recognition of a liability within Other current liabilities for this deferral. This liability was subsequently reduced through a credit to cost of revenue as the costs were incurred. Cost of revenue for 2022 was a credit of \$1.1 million.

ReproNovo Partnership

On December 13, 2023, the Company and ReproNovo SA. (“ReproNovo”) announced a global licensing agreement for the development and commercialization of leflutrozone. Under the terms of the global licensing agreement, ReproNovo will receive an exclusive worldwide license to develop and commercialize leflutrozone. The Company received an upfront payment of \$1.0 million in December 2023. ReproNovo will be responsible for all future research, development and commercialization of leflutrozone. Additionally, the Company will be eligible to receive up to \$64.3 million in future clinical, regulatory and commercial milestones, tiered royalties ranging from the low-to-mid-single digits on global annual net sales of leflutrozone, as well as a negotiated percentage of sublicensing revenues from certain sublicenses. A single performance obligation was identified in this agreement which is the promise to grant the license to develop and commercialize leflutrozone. As the upfront payment is fixed and non-refundable, and therefore does not represent variable consideration, the performance obligation is satisfied and revenue of \$1.0 million was recognized at the point in time that ReproNovo gained the right to access the license. The additional potential future milestone and royalty payments represent variable consideration that will be recognized when achievement is determined to be probable.

As a consequence of the milestone proceeds paid to the Company under the license and collaboration agreement with ReproNovo, and in accordance with the terms of the 2015 asset purchase agreement with Novartis, the Company is also obligated to pay a proportion of cash milestone payments received after deduction of costs, charges and expenditures. The Company therefore accrued for a payment to Novartis of \$0.1 million at December 31, 2023. No revenues were recognized in respect of this agreement in the year ended December 31, 2022.

The Company's revenue is attributed to the operations of the Company in the U.K.

15. Other (expenses)/income, net

In 2019, the Company acquired OncoMed in a business combination and subsequently renamed it Mereo BioPharma 5, Inc. At the time of the business combination, the Company’s intention was to sell or out-license Navi, rather than to invest in development of the asset in the course of the Company’s ordinary activities. In the approximately nine months between its acquisition and out-licensing of the worldwide rights of the asset in January 2020, Mereo BioPharma 5, Inc’s activities primarily involved out-licensing and winding-down the program.

Due to the Company’s intention to sell or out-license Navi from the time of its acquisition and the lack of investment in development activities for the asset beyond wind-down costs, the Company concluded that entering into the license agreement was not in the course of its ordinary activities. Therefore, the licensee did not meet the definition of a “customer” as defined in ASC 606, as such, the license agreement was determined not to be within the scope of ASC 606.

In February 2022, the Company received a milestone payment of \$2.0 million under the Navi License Agreement. An associated payment was made to the former shareholders of Mereo BioPharma 5, Inc. under the CVR of \$0.9 million, after deductions of costs, charges and expenditures, which resulted in other income, net of \$1.1 million.

16. Income taxes

The group operates in the U.K. and in the U.S. and is subject to income taxes in those countries. The U.K corporation tax rate applied for 2023 was 23.52% (2022: 19.0%), which results from applying the enacted statutory rate of 19% from January 1, 2023 through April 1, 2023, and 25% for the remainder of 2023. U.K. deferred tax assets and liabilities have been measured at a rate of 25%. The U.S federal income tax rate is 21%. U.S. deferred tax assets and liabilities are calculated at an enacted rate of 21%.

The components of loss before income taxes are as follows:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
United States	\$ 8,464	\$ 19,934
United Kingdom	21,534	23,004
Total	<u>\$ 29,998</u>	<u>\$ 42,938</u>

The components of income tax expense are as follows:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Current tax expense		
United States	\$ (2)	\$ (2)
United Kingdom	534	720
Total current tax expense/(credit)	<u>\$ 532</u>	<u>\$ 718</u>
Deferred tax expense		
United States	—	—
United Kingdom	—	—
Total deferred tax expense	\$ —	\$ —
Total income tax expense/(credit)	<u>\$ 532</u>	<u>\$ 718</u>

A reconciliation of the U.K statutory income tax rate to the effective tax rate is as follows:

	Year ended December 31,	
	2023	2022
	(%)	(%)
Income tax using U.K. statutory rate	23.5	19.0
Effect of rate change on opening tax balances	—	—
Effect of rate change on current and deferred taxes	—	—
Permanent differences	(5.4)	(5.3)
U.K. R&D tax credits	(1.9)	(1.4)
Changes in deferred tax valuation allowance	(15.7)	(13.9)
Foreign rate differential	(0.7)	0.9
Adjustments in respect of prior years	1.9	1.8
Other	0.2	1.2
Effective tax rate for loss from continuing operations	<u>1.77</u>	<u>1.8</u>

Components of the Company's deferred tax assets and liabilities are as follows:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Deferred tax assets:		
Operating losses carryforwards	\$ (110,604)	\$ (104,874)
Property and equipment	(17)	(0)
Intangible fixed assets	(4,248)	(7,281)
Temporary differences trading	56	(53)
Temporary differences non trading	(7)	(8)
Loan relationships	(553)	(548)
U.S. tax credits	(79,024)	(73,276)
Section 174 R&E	(4,437)	(3,711)
Share based compensation awards	(7,487)	(7,492)
Others	(23)	—
Gross deferred tax asset	<u>(206,344)</u>	<u>(197,243)</u>
Valuation allowance	\$ 206,344	\$ 197,243
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>
Deferred tax liabilities:		
Depreciation	\$ 32	\$ 218
Right-of-use assets	—	—
Intangible assets	—	—
Net deferred tax liabilities	<u>\$ 32</u>	<u>\$ 218</u>
Total deferred tax, net	<u>\$ (32)</u>	<u>\$ (218)</u>

Movements in deferred tax valuation allowance:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
Valuation allowance at January 1	\$ 197,243	\$ 182,723
Change in tax rates	—	—
Increase/(decrease in valuation allowance)	9,101	14,520
Valuation allowance at December 31	\$ 206,344	\$ 197,243

Management has reviewed cumulative tax losses and projections of future taxable losses and determined that it is not more likely than not that they will be realized. Accordingly, valuation allowances have been provided over deferred tax assets.

As of December 31, 2023 the Company had U.K. net operating loss carryforwards of \$30.6 million that can be carried forward indefinitely. The Company had U.S. federal tax losses to be carried forward of \$66.2 million, of which \$18.2 million can be carried forward indefinitely and \$48.0 million will begin to expire in 2024. The Company also had \$14.0 million of U.S. federal R&D tax credits that begin to expire in 2024 and U.S. state tax losses to be carried forward of less than \$0.1 million which begin to expire in 2027. The Company also had less than \$0.1 million of state R&D tax credits that do not have an expiration date.

As of December 31, 2022 the Company had U.K. net operating loss carryforwards of \$28.7 million that can be carried forward indefinitely, U.S. federal tax losses to be carried forward of approximately \$65.2 million, of which \$ 17.2 million can be carried forward indefinitely and \$48.0 million which will begin to expire in 2023. The Company also had \$14.0 million of U.S. federal research and development (“R&D”) tax credits that began to expire in 2022 and U.S. state tax losses to be carried forward of less than \$0.1 million which begin to expire in 2027. The Company also had less than \$0.1 million of state R&D tax credits that do not have an expiration date.

The Company files separate income tax returns in the U.K. and the U.S. All necessary income tax filings have been completed for all years up to and including December 31, 2022, and there are no ongoing tax examinations in any jurisdiction. As of December 31, 2023, the Company has an uncertain tax position of \$2.9 million, representing 20% of historic R&D tax losses claimed for Alternative Minimum Tax (“AMT”) specific to the year ending December 31, 2022.

For Mereo BioPharma 5, Inc, with respect to accumulated tax losses carried forward prior to its acquisition by the Company, of \$18.2 million, there is a change of control restriction which will limit the amount available in any one year to \$0.3 million per year.

17. Share-based compensation

The Company currently grants equity awards under the Mereo 2019 Equity Incentive Plan (the “2019 EIP”) and the 2019 Non-Employee Equity Incentive Plan (the “2019 NED EIP”). There are also still outstanding awards under two previous plans, the 2015 Plan and the Mereo Share Option Plan (together the “Previous Share Option Plans”), however no awards have been granted under these plans since 2016 and no further grants are envisaged.

The 2019 EIP and 2019 NED EIP were adopted on April 4, 2019, and subsequently amended on February 3, 2020 and January 15, 2021. The 2019 EIP and 2019 NED EIP authorizes the grant of a variety of types of share awards over the Company’s ADSs to executives and employees, and non-executives, respectively. The total number of ADSs available for issue under the 2019 EIP and 2019 NED EIP was 4.7 million as of December 31, 2023.

The charge for share based compensation arises solely in respect of awards made under these two active plans as follows:

	Year ended December 31,	
	2023	2022
	(\$'000)	(\$'000)
2019 EIP	4,064	3,888
2019 NED EIP	860	880
Total	4,924	4,768

As of December 31, 2023, the total unrecognized compensation cost related to outstanding share awards was \$2.9 million, which the Company expects to recognize over a weighted-average period of 1.6 years.

The majority of awards that were exercised in 2023 and 2022 were net share settled such that the Company withheld shares with a value equivalent to the exercise price and the employees' obligation for the applicable income and other employment taxes and remitted the cash to the appropriate taxing authorities. The remaining shares delivered upon exercise by employees were satisfied by delivering shares from the Employee Benefit Trust. Shares delivered in settlement of deferred RSUs to non-executive directors following separation of service were satisfied by issuing new shares.

2019 EIP

The Company has awarded the following instruments under the 2019 EIP:

Market Value Options ("Options")

Options permit the recipient to purchase ADSs at an exercise price equal to the market price of the underlying ADSs on the date of grant. Options issued under the EIP have a contractual term of 10 years and vest over four years, with one-fourth of the award vesting on the first anniversary of the grant date and the remainder vesting in equal monthly installments over the three-year period thereafter. No performance conditions apply to such Options.

A summary of the Company's Option activity and related information under the 2019 EIP for 2023 and 2022 is as follows; all outstanding Options are expected to vest:

	Number of options (ADSs)	Weighted Average Exercise Price (\$)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At January 1, 2022	3,943,702	2.88	2.40	—
Granted	4,126,400	1.38	3.09	—
Forfeited	(48,044)	3.97	3.09	—
Expired	(1,164,197)	1.83	1.58	—
At December 31, 2022	6,857,861	2.15	1.83	1
Granted	4,874,300	1.03	0.92	—
Forfeited	(1,324,809)	1.42	1.27	—
Expired	(751,672)	2.82	2.35	—
Exercised	(60,519)	1.57	1.29	45
At December 31, 2023	9,595,161	1.63	1.41	8,122
Vested	3,425,209	2.27	1.91	1,463
Nonvested	6,169,952	1.27	1.13	6,670

At December 31, 2022, 4,775,834 Options with a weighted average grant date fair value of \$1.57 were nonvested. The weighted average per share fair value of options vesting during the year ended December 31, 2023 was \$1.55 (2022: \$2.45).

At December 31, 2023, the weighted average contractual life of Options outstanding was 8.1 years (2022: 7.9 years) and for vested Options was 7.1 years (2022: 6.2 years).

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the quoted market price of the Company's ADSs for the Options that were in-the-money at December 31, 2023.

The fair value of each Option is estimated on the date of grant using the Black-Scholes option pricing model based on the following weighted average assumptions:

	2023	2022
Market value of ADSs (\$)	1.03	1.38
Risk-free interest rate (%)	3.48%	1.83%
Expected life (years)	10.00	10.00
Expected volatility (%)	98.24%	96.00%
Expected dividends	—	—

The expected volatility assumption is calculated by reference to the historical volatility of an appropriate peer group of companies for a period equal to the expected term of the Option. The grant date fair value is recognized over the requisite service period using the accelerated graded-vesting attribution method.

Restricted Stock Units (“RSUs”)

RSUs were first awarded in 2023 and each RSU entitles the holder a conditional right to receive an ADS at no cost upon the completion of the applicable vesting period. RSUs granted under the EIP vest over three years with one-third of the awards vesting on the first anniversary of the grant date and the remainder vesting in four equal six-monthly installments thereafter. Upon vesting of the RSUs, the Company issues the requisite ADSs, a portion of which are sold to satisfy the resulting withholding tax obligations, and the remaining ADSs are delivered to the holder. RSUs have a maximum contractual life of 3.0 years.

A summary of the Company’s RSU activity and related information under the 2019 EIP for 2023 is as follows. As at December 31, 2023 no RSUs were vested but all outstanding RSUs are expected to vest:

	Number of RSUs (ADSs)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At December 31, 2022	—	—	—
Granted	679,225	1.03	
Forfeited	(190,000)	1.01	
At December 31, 2023	<u>489,225</u>	<u>1.03</u>	<u>1,130</u>

At December 31, 2023, the weighted average remaining period of RSUs outstanding was 2.1 years.

The aggregate intrinsic value is calculated as the quoted market price of the Company’s ADSs at December 31, 2023. The fair value of each RSU was calculated by reference to the value of the shares awarded. The grant date fair value is recognized over the vesting period using the accelerated graded-vesting attribution method.

Performance Based Restricted Stock Units (PSUs)

PSUs were first awarded in 2023 and each PSU entitles the holder a conditional right to receive an ADS at no cost upon satisfaction of four escalating ADS price performance targets over a two year performance period following the date of grant. A summary of the Company’s PSU activity and related information under the 2019 EIP for 2023 is as follows. At December 31, 2023 no PSUs were vested.

	Number of PSUs (ADSs)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At December 31, 2022	—	—	—
Granted	1,543,150	0.61	—
Forfeited	(205,000)	0.61	—
At December 31, 2023	<u>1,338,150</u>	<u>0.61</u>	<u>3,091</u>

At December 31, 2023, the weighted average contractual life of PSUs outstanding was 1.1 years. These awards were valued using a Monte Carlo model with the following key inputs:

	2023
Market value of ADSs (\$)	1.01
Risk-free interest rate (%)	4.14%
Expected life (years)	1.03
Expected volatility (%)	105.56%
Expected dividends	—

The grant date fair value is recognized over the expected life using the straight-line attribution method.

2019 NED EIP

The Company has awarded the following instruments under the 2019 NED EIP:

Options

Options permit the recipient to purchase ADSs at an exercise price equal to the market price of the underlying ADSs on the date of grant. Options issued under the 2019 NED EIP have a contractual term of 10 years and vest in equal monthly installments over one year. There are no performance conditions. A summary of the Company's Option activity and related information under the 2019 NED EIP for 2023 and 2022 is as follows; all outstanding Options are expected to vest:

	Number of options (ADSs)	Weighted Average Exercise Price (\$)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At December 31, 2021	421,791	2.90	2.44	—
Granted	535,488	1.22	1.08	—
Forfeited	(42,192)	1.01	0.89	—
At December 31, 2022	915,087	2.00	1.71	6
Granted	440,000	0.94	0.84	—
At December 31, 2023	1,355,087	1.66	1.43	1,166
Vested	1,281,751	1.70	1.46	1,066
Nonvested	73,336	0.94	0.84	100

At December 31, 2022, 82,503 Options with a weighted average grant date fair value of \$1.01 were nonvested. The weighted average per share fair value of options vesting during the year ended December 31, 2023 was \$1.38 (2022: \$1.78).

At December 31, 2023, the weighted average contractual life of Options outstanding was 8.0 years (2022: 8.5 years) and for vested Options was 7.9 years (2022: 8.4 years).

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the quoted market price of the Company's shares for the Options that were in-the-money at December 31, 2023.

The fair value of each Option is estimated on the date of grant using the Black-Scholes option pricing model based on the following weighted average assumptions:

	2023	2022
Market value of ADSs (\$)	0.94	1.22
Risk-free interest rate (%)	3.36%	1.96%
Expected life (years)	10.00	10.00
Expected volatility (%)	97.94%	96.00%
Expected dividends	—	—

The expected volatility assumption is calculated by reference to the historical volatility of an appropriate peer group of companies for a period equal to the expected term of the Option. The grant date fair value is recognized over the vesting period using the accelerated graded-vesting attribution method.

Deferred Restricted Stock Units (“DRSUs”)

Non-executive directors may voluntarily elect to convert their annual cash fees for services on the board of directors and DRSUs were granted to NEDs who made such elections. The number of DRSUs granted is determined by dividing the amount of the annual cash compensation by the average closing trading price of the Company's ADSs over the most recent 30 trading days as of the date of grant. Each DRSU entitles the holder to receive an ADS at no cost upon the completion of the vesting period. DRSUs granted under the 2019 NED EIP vest in substantially equal monthly installments over the plan year. Payment of DRSUs in ADSs will generally be 180 days following separation of service but have no specified contractual term.

A summary of the Company’s DRSU activity and related information under the 2019 NED EIP for 2023 and 2022 is as follows. At December 31, 2023 all DRSUs are expected to vest:

	Number of DRSUs (ADSs)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At January 1, 2022	—	—	—
Granted	348,044	1.11	—
Forfeited	—	—	—
At December 31, 2022	348,044	1.11	261
Granted	482,214	0.94	—
Issued	(100,276)	1.02	—
At December 31, 2023	729,982	1.01	1,686
Vested	689,837	1.02	1,594
Non vested	40,145	0.94	93

The aggregate intrinsic value is calculated as the quoted market price of the Company’s ADSs at December 31, 2023. The fair value of each DRSU was calculated by reference to the value of the shares awarded. The grant date fair value is recognized over the vesting period using the accelerated graded-vesting attribution method.

Previous Share Option Plans

Mereo previously granted options to employees under two separate plans, the Mereo BioPharma Group Limited Share Option Plan (the “2015 Plan”) and the Mereo Share Option Plan (the “Share Option Plan”). No awards have been granted under either of these plans since 2017 and following the introduction of the 2019 EIP and the 2019 NED EIP, no further awards are envisaged.

All awards made under these plans became fully vested, with all compensation cost fully recognized, before December 31, 2021. A summary of the awards still outstanding under these plans is as follows:

	Number of options (ADSs)	Weighted Average Exercise Price (\$)	Weighted Average Grant Date Fair Value (\$)	Aggregate intrinsic value (\$'000)
At December 31, 2021	1,924,331	10.45	9.39	—
Expired	(240,776)	16.31	11.04	—
At December 31, 2022	1,683,555	9.63	9.15	—
Expired	(111,197)	15.94	8.11	—
At December, 31, 2023	1,572,358	9.22	8.19	—

At December 31, 2023, the weighted average contractual life of options outstanding and vested was 1.8 years (2022: 2.4 years).

18. Loss per share

Basic loss per share is calculated by dividing the loss attributable for the year to ordinary equity holders of the Company by the weighted average number of ordinary shares outstanding during the year. Diluted loss per share is based on dividing the loss attributable for the year, adjusted for the effect of diluted ordinary shares, by ordinary share equivalents, which includes the weighted average number of ordinary shares outstanding and the effect of dilutive ordinary share equivalents.

	Year ended December 31,	
	2023	2022
	(\$'000, except per share amounts)	(\$'000, except per share amounts)
Net loss	\$ (29,466)	\$ (42,220)
Net loss per share - basic and diluted	\$ (0.04)	\$ (0.07)
Weighted-average number of shares used in computing net loss per share - basic and diluted	659,453,921	603,196,403

	Years ended December 31,	
	2023	2022
Stock options to purchase ordinary shares	54,751,240	38,864,740
Restricted stock units	2,446,125	—
Performance stock units	6,690,750	—
Convertible loan notes (as converted to ordinary shares)	15,657,825	17,010,137
Convertible loan notes - private placement (as converted to ordinary shares)	—	41,048,784
Warrants to purchase ordinary shares (as converted to ordinary shares)	2,487,816	147,431,351

For the years ended December 31, 2023 and 2022, share options, restricted stock units, convertible loan notes and warrants were anti-dilutive as they would have decreased the loss per share and were excluded from the calculation of diluted loss per share. Therefore, the weighted average shares outstanding used to calculate both the basic and diluted loss per share was the same.

19. Commitments and contingencies

Indemnification agreements

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations. In accordance with the Articles of Association in force on December 31, 2023, the Company has indemnification obligations to its officers and directors for certain events or occurrences, subject to certain limits, while they are serving at the Company's request in such capacity. There have been no claims to date, and the Company has directors and officers insurance that may enable it to recover a portion of any amounts paid for future potential claims.

Novartis Asset Purchase Agreements

The Company issued to Novartis loan notes and 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) of products that include the assets acquired. The levels of ascending percentages of tiered annual worldwide net sales are stipulated under the respective Purchase Agreements.

The Company 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 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.

License agreement with AstraZeneca

In October 2017, the Company 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 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, the Company 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 Company 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 alvelestat. In addition, the Company has agreed to make payments to AstraZeneca based on specified commercial milestones of the product. The Company 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 Company 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. The Company 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 Company for such product in such country will become fully paid and irrevocable. Prior to exercise of the Option, if at all, the Company 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.

Research and development activities

The Company enters into contracts in the normal course of business with CROs, CMOs and other third parties to assist in the performance of research and development activities and other services and products for operating purposes. The contracts with CROs generally provide for termination on notice, and therefore, are cancellable contracts and not included herein. The Company has manufacturing commitments with CMOs of \$4.2 million as of December 31, 2023 (2022: \$1.1 million).

Legal proceedings

From time to time, the Company may be a party to litigation or subject to claims incident to the ordinary course of business. The Company was not a party to any material litigation and did not have any material contingency reserves established for any liabilities as of December 31, 2023 and 2022.

20. Related party disclosures

In the years ended December 31, 2023 and 2022, there were no reportable related party transactions.