

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

**Amendment No. 2
to
Form F-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Orphazyme A/S
(Exact name of Registrant as specified in its charter)

The Kingdom of Denmark
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

Not applicable
(I.R.S. Employer
Identification Number)

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(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

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

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

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

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

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

Emerging growth company

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

[†] The term "new or revised financial accounting standards" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price ⁽²⁾⁽³⁾⁽⁴⁾	Amount of registration fee ⁽⁴⁾
Ordinary Shares, DKK 1 nominal value per share ⁽¹⁾	\$114,999,985	\$14,927

(1) All ordinary shares in the U.S. offering are represented by ADSs, each of which represents one ordinary share of the registrant. ADSs issuable upon deposit of the ordinary shares registered hereby are being registered pursuant to a separate registration statement on Form F-6 (File No. 333-248669).

(2) Includes the aggregate offering price of additional ordinary shares (which may be in the form of ADSs) that the underwriters have the option to purchase.

(3) Includes ordinary shares that are being offered in a private placement to qualified investors, as defined under the EU Prospectus Regulation 2017/1129, in Europe, but which may be resold from time to time in the United States in transactions requiring registration under the Securities Act, or an exemption therefrom. The total number of ordinary shares (including ordinary shares in the form of ADSs) in the U.S. offering and the European private placement is subject to reallocation between them to the extent permitted under applicable laws and regulations.

(4) Estimated solely for the purpose of determining the amount of registration fee in accordance with Rule 457(o) under the Securities Act of 1933. This registration fee was previously paid by the Registrant in connection with the filing of its Registration Statement on Form F-1 on September 4, 2020.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus dated September 23, 2020

PROSPECTUS

7,616,146 Ordinary Shares
(including Ordinary Shares in the form of American Depositary Shares)



Orphazyme A/S

\$ per American Depositary Share
DKK per Ordinary Share

We are offering an aggregate of 7,616,146 of our ordinary shares in a global offering.

We are offering _____ ordinary shares in the form of _____ American Depositary Shares, or ADSs, in the United States, referred to herein as the U.S. offering. Each ADS represents the right to receive one ordinary share.

We are concurrently offering _____ ordinary shares in Europe in a private placement to qualified investors, as defined under the EU Prospectus Regulation 2017/1129, referred to herein as the European private placement.

This is the initial public offering of ADSs in the United States. The ADSs have been approved for listing on the Nasdaq Global Select Market under the symbol "ORPH."

Currently, our ordinary shares are listed on Nasdaq Copenhagen A/S, or Nasdaq Copenhagen, under the symbol "ORPHA." The closing price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 was DKK 82.70 per ordinary share, which equals a price of \$13.13 per ADS, based on an exchange rate of DKK 6.2967 per \$1.00 as of September 17, 2020 and an ADS-to-ordinary share ratio of 1 to 1.

Currently, no public market exists for the ADSs. After pricing of the global offering, we expect that the ADSs will trade on the Nasdaq Global Select Market under the symbol "ORPH."

The closings of the U.S. offering and the European private placement, which are together referred to as the global offering, will occur substantially simultaneously. The number of ordinary shares (including ordinary shares in the form of ADSs) in the U.S. offering and the European private placement is subject to reallocation between these offerings to the extent permitted under applicable laws and regulations.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company" and "Prospectus Summary—Implications of Being a Foreign Private Issuer" for additional information.

Investing in the ordinary shares and ADSs involves risks that are described in the "[Risk Factors](#)" section beginning on page 15 of this prospectus.

	Per Ordinary Share	Per ADS	Total (1)
Public offering price	DKK	\$	\$
Underwriting commission (2)	DKK	\$	\$
Proceeds, before expenses, to us	DKK	\$	\$

(1) Total gross proceeds from the global offering, including the European private placement, are \$ _____. Such proceeds less underwriting commissions are \$ _____.

(2) We refer you to "Underwriting" beginning on page 230 for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to an additional 1,142,421 ordinary shares (which may be in the form of ADSs) from us, at the public offering price, less the underwriting commission, for 30 days after the date of this prospectus.

None of the Securities and Exchange Commission, any state securities commission, the Danish Financial Supervisory Authority, nor any other foreign securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The ordinary shares and ADSs will be ready for delivery on or about _____, 2020.

Joint Book-Running Managers

BofA Securities

Cowen

Guggenheim Securities

Lead Manager

Danske Markets

The date of this prospectus is _____, 2020.

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We and the underwriters have not authorized anyone to provide you any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations, and prospects may have changed since that date.

For investors outside of the United States: we have not and the underwriters have not done anything that would permit the global offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the global offering of ordinary shares and ADSs and the distribution of this prospectus outside of the United States.

In accordance with applicable Danish law, we have prepared a Danish prospectus, or the Danish Prospectus. The Danish Prospectus will be made public on, or about, _____, 2020. The Danish Prospectus is

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prepared for the sole purpose of satisfying applicable Danish securities legal and regulatory requirements in order to list the ordinary shares underlying the ADSs and the ordinary shares offered in this global offering on Nasdaq Copenhagen. The Danish Prospectus may not be relied upon for any other purposes, including with respect to the global offering of ordinary shares and ADSs by us or any other person. Neither we, our management team, our board of directors, our employees, our advisors, the underwriters nor any other person accept any liability for any information contained (or not contained) in the Danish Prospectus or for any inconsistencies with the contents of this prospectus.

ABOUT THIS PROSPECTUS

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to the terms “Orphazyme,” “the Company,” “we,” “us” and “our” refer to Orphazyme A/S and its wholly owned subsidiaries. In this prospectus, any reference to any provision of any legislation shall include any amendment, modification, re-enactment or extension thereof. Words importing the singular shall include the plural and vice versa, and words importing the masculine gender shall include the feminine or neutral gender. All references to “shares” in this prospectus refer to ordinary shares of Orphazyme A/S with a nominal value of DKK 1 per share.

TRADEMARKS

This prospectus includes trademarks, tradenames and service marks, certain of which belong to us and others that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but the absence of those references is not intended to indicate, in any way, that we will not assert our rights or that the applicable owner will not assert its rights to these trademarks and tradenames to the fullest extent under applicable law. We do not intend our use or display of other parties’ trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

MARKET AND INDUSTRY DATA

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties, as well estimates by our management based on such data. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. The market data and estimates used in this prospectus involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such data and estimates. We believe that the information from these industry publications, surveys and studies is reliable. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of important factors, including those described in the section titled “Risk Factors” and “Special Note Regarding Forward-Looking Statements.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

PRESENTATION OF FINANCIAL INFORMATION

This prospectus includes our audited consolidated financial statements as of and for the years ended December 31, 2019 and 2018 and the related notes and unaudited interim condensed consolidated financial statements as of and for the six months ended June 30, 2020 and 2019 and the related notes, which are collectively referred to as “consolidated financial statements” or “financial statements,” and can be found beginning on page F-1 of this prospectus.

We maintain our books and records in Danish kroner and we prepare our audited consolidated financial statements in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB. None of the consolidated financial statements in this prospectus were prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. All references in this prospectus to “\$” are to U.S. dollars, to “DKK” are to Danish kroner and to “€” are to the Euro. Except with respect to U.S. dollar amounts presented as contractual terms, amounts denominated in U.S. dollars when received or paid and unless otherwise indicated, certain Danish kroner amounts contained in this prospectus have been translated into U.S. dollars at the rate of \$1.00 to DKK 6.6318, which was the noon buying rate of the Federal Reserve Bank of New York on June 30, 2020. Except with respect to Euros amounts presented as contractual terms, amounts denominated in Euros when received or paid and unless otherwise indicated, have been translated into Euros at the rate of €1.00 to DKK 7.4526, which was the noon buying rate of the European Central Bank on June 30, 2020. These translations should not be considered representations that any such amounts have been, could have been or could be converted into U.S. dollars or Danish kroner at that or any other exchange rate as of that or any other rate. We have made rounding adjustments to some of the figures included in this prospectus. Accordingly, numerical figures shown as totals in some tables may not be an arithmetic aggregation of the figures that preceded them.

PROSPECTUS SUMMARY

This summary does not contain all of the information that may be important to you in making your investment decision. In addition to this summary, we urge you to read the entire prospectus carefully, especially the risks of investing in the ordinary shares and ADSs discussed under “Risk Factors,” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements contained elsewhere in this prospectus before deciding whether to invest in the ordinary shares and ADSs. The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and financial statements appearing elsewhere in this prospectus.

Overview

We are a late-stage biopharmaceutical company harnessing the amplification of Heat Shock Proteins, or HSPs, in order to develop and commercialize novel therapeutics for the treatment of neurodegenerative orphan diseases. In September 2020, the U.S. Food and Drug Administration, or FDA, accepted our new drug application, or NDA, for our product candidate, arimoclomol, for Niemann-Pick disease Type C, or NPC, with priority review. In the letter accepting the NDA, the FDA set a target action date of March 17, 2021 under the Prescription Drug User Fee Act, or PDUFA, for completion of its review of our NDA. In the letter, the FDA also notified us that, while conducting its filing review, it has identified potential review issues, without specifying what such issues are, that we may need to address before obtaining FDA approval. We also intend to submit a marketing authorization application, or MAA, to the European Medicines Agency, or EMA, in the second half of 2020. Arimoclomol is also in registrational clinical trials for the treatment of Amyotrophic Lateral Sclerosis, or ALS, and Sporadic Inclusion Body Myositis, or sIBM, and we intend to advance into pivotal-stage clinical development in neurological Gaucher disease. Arimoclomol is an orally- or naso/gastrically-administered small molecule that crosses the blood-brain barrier and is designed to selectively amplify the natural role of endogenous HSPs, which protect against cellular toxicity caused by protein misfolding, aggregation and lysosomal dysfunction. In our Phase 2/3 clinical trial of arimoclomol in NPC, we have observed evidence of slowing of disease progression, supporting our registration effort in the United States and Europe. Results observed in the Phase 2 clinical trials for ALS, sIBM and Gaucher disease demonstrated the potential of arimoclomol to slow the progression of such diseases, forming the basis of our ongoing registrational clinical trials in ALS and sIBM, as well as our intention to advance into pivotal-stage clinical development in neurological Gaucher disease. We also believe that arimoclomol has been well tolerated in clinical trials including more than 500 human subjects for various indications. We are committed to leveraging our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial experience and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases.

Arimoclomol functions by upregulating HSPs, which are molecular chaperones that are critical in the natural cellular response to stress, protein misfolding, aggregation and lysosomal dysfunction. We believe that arimoclomol is the first clinical product candidate to harness this mechanism of action for the treatment of lysosomal storage diseases, or LSDs, and neuromuscular diseases affecting the central nervous system, or CNS, and muscle. Arimoclomol is currently available to NPC patients in the United States through our early access program, or EAP, with nine patients on treatment as of September 18, 2020 and we have established and may in the future establish early access programs or compassionate use programs for same and other indications and in other locations. We are conducting clinical trials for arimoclomol in three additional indications, including a Phase 3 registrational clinical trial in ALS, for which we expect top-line results in the first half of 2021, a Phase 2/3 registrational clinical trial in sIBM, for which we expect top-line results in the first half of 2021, and a Phase 2 clinical trial in Gaucher disease, for which we announced top-line results in June 2020. We believe that each of these indications has a significant unmet medical need today, given the limited availability of effective therapies for NPC, ALS and neurological Gaucher disease and the lack of any approved drugs for sIBM. Both the FDA and the EMA have granted arimoclomol orphan drug designation for NPC, ALS and sIBM. The FDA has also

granted arimoclochol fast track designation in NPC, ALS and sIBM, has designated arimoclochol as a breakthrough therapy in NPC and has granted arimoclochol a rare pediatric disease designation in NPC, potentially entitling us to a priority review voucher if arimoclochol is approved in NPC.

The following table summarizes the indications we are pursuing with arimoclochol, for which we have retained our full, worldwide, exclusive marketing and distribution rights.

Product Candidate	Indication	Stage of Development					Next Anticipated Milestone(s)
		PC	Ph 1	Ph 2	Ph 3	Filed	
Arimoclochol	Niemann-Pick disease Type C ⁽¹⁾	Filed U.S. NDA (priority review)					NDA Target PDUFA Date March 17, 2021 EU Submission H2 2020
	Amyotrophic Lateral Sclerosis (ALS)	Registrational Ph 3					Top-line Phase 3 results H1 2021
	Sporadic Inclusion Body Myositis (sIBM)	Registrational Ph 2/3					Top-line Phase 2/3 results H1 2021
	Neurological Gaucher disease (Type I/III)	Ph 2					

(1) Currently available via an Early Access Program in the US at multiple sites.

■ Lysosomal Storage Diseases

■ Neuromuscular Disorders

Our Product Candidate—Arimoclochol

Arimoclochol for the Treatment of Niemann-Pick Disease Type-C

Our most advanced program is for the treatment of NPC, a LSD. NPC is a rare, genetic and progressive disease that impairs the ability of the body to recycle cholesterol and other types of lipids, resulting in damage to the body’s tissues, including the brain. Symptoms of NPC usually occur during mid to late childhood, and include difficulties in swallowing, loss of speech and cognition, motor coordination and ambulation. In more aggressive forms, NPC is frequently fatal by the time patients reach their twenties. We estimate the incidence of NPC to be one in 100,000 live births. Based on these incidence rates, the number of NPC patients in the United States and in Europe is estimated to be approximately 1,800 individuals. Of these, we estimate that approximately 1,100 individuals have been diagnosed, of which approximately 300 are in the United States and approximately 800 are in Europe. However, diagnostic challenges may affect the number of potential patients, and we believe that the availability of treatment options could increase awareness of the disease and assist in identifying more cases. We believe that there is a significant unmet need for new treatments for NPC due to the side effects, limited availability and efficacy of the existing treatment options. In our registrational Phase 2/3 clinical trial for NPC, arimoclochol was observed to be well-tolerated and demonstrated a benefit over placebo and routine clinical care using the 5-domain NPC clinical severity score, or NPCCSS, the key primary endpoint, corresponding to a 63% relative reduction in disease progression (p=0.0537). The 5-domain NPCCSS is a disease-specific and validated measure of disease progression refined by us with disease opinion leaders, consisting of the five clinically most relevant domains to patients with NPC, caregivers and physicians. Arimoclochol demonstrated a statistically significant benefit over placebo using the 5-domain NPCCSS score when excluding three patients with double functional null mutations, corresponding to a 77% relative reduction in disease progression (p=0.0242); in patients aged ³ 4 years, corresponding to an 80% relative reduction in disease progression (p=0.0189); and in patients also receiving miglustat (corresponding to a 101% reduction in disease progression over routine care including miglustat (p=0.0074)).

Arimoclochol for the Treatment of Amyotrophic Lateral Sclerosis

We are also developing arimoclochol for the treatment of ALS. ALS, commonly referred to as Lou Gehrig’s disease, is a rapidly progressing neurological disease with the onset of symptoms typically occurring between 40 to 70 years of age, with patient mortality occurring in most patients within three to five years of

disease onset. ALS attacks neurons responsible for controlling voluntary muscles, resulting in muscle weakness in limbs, and impacts speaking, chewing, swallowing and breathing, leading to progressive disability and eventually death, typically from respiratory failure and aspiration pneumonia. In addition, up to 50% of ALS patients develop cognitive impairment associated with frontotemporal dementia. According to the ALS Association, the incidence of ALS in the United States is estimated to be two per 100,000 within the general population and prevalence is estimated to be between five and seven cases within a population of 100,000, equating to approximately 20,000 patients in the United States and 30,000 patients in Europe. 5,000 new ALS patients are diagnosed each year in the United States. ALS affects men to women at a ratio of 3:2. There are currently a limited number of treatments available for ALS, with disease management predominantly focused on treatment of symptoms and supportive care. Riluzole, developed by Sanofi, was the first drug to be approved by the FDA for the treatment of ALS more than 20 years ago, but has been shown to prolong survival by just two to three months. In May 2017, the FDA approved Edaravone, which has been shown to slow functional decline in ALS patients, but is administered through a burdensome intravenous regimen. Non-invasive ventilation has also been shown to support against respiratory failure, improve quality of life, and potentially increase survival by around seven months. We believe there is a significant unmet need for new effective treatments for patients suffering from ALS in order to improve the clinical course of their disease and extend their survival. In a Phase 2 clinical trial of arimoclomol for the treatment of ALS and in a Phase 2/3 clinical trial for the treatment of superoxide dismutase 1, or SOD1, ALS, arimoclomol was observed to be well tolerated, and showed positive trends across clinical endpoints, including a 30% and 28% slowing of disease progression, respectively, as measured by the ALS Functional Rating Scale, or ALSFRS-R, from baseline, when compared to a historical control group. The ALSFRS-R is an instrument for evaluating the functional status of patients with ALS, including respiratory function. Based on these results, we are conducting a Phase 3 registrational trial of arimoclomol for ALS, for which we expect to report top-line results in the first half of 2021.

Arimoclomol for the Treatment of Sporadic Inclusion Body Myositis

In addition, we are developing arimoclomol for the treatment of sIBM. sIBM is an acquired, rare and slowly progressive muscle disorder. The onset of symptoms occurs on average after age 50, with up to three of every four cases occurring in men. Many patients with sIBM will suffer loss of fine motor skills such as writing, grooming and the ability to eat unaided, and it is associated with significant morbidity including a propensity to fall, difficulty swallowing and severe disability. Patients with sIBM may also require use of a walking stick as early as five years after symptom onset and become wheelchair dependent and severely disabled within 10 to 15 years. In a recent systematic review, the prevalence of sIBM has been estimated to be 4.6 per 100,000 people, equating to an estimated 40,000 individuals living with sIBM in the United States and Europe combined. sIBM is distinct in its presentation, most commonly affecting muscles of the thigh and forearm, and immunosuppressive treatments have not been shown to be effective, despite evidence of inflammatory pathology. There is a prominent degenerative element to the disease and muscle biopsies reveal the presence of myotoxic protein aggregates (inclusions). There are currently no effective or approved treatments for sIBM. In a Phase 2 clinical trial of arimoclomol for the treatment of sIBM, arimoclomol was observed to be well tolerated and demonstrated a slowing in the rate of disease progression as measured on the Inclusion Body Myositis functional rating scale, or IBMFRS, with a 60% reduction in progression at four months when compared to placebo. This was shown to persist for several months beyond the 4 month treatment period (72.8% reduction at 8-months, p=0.055). Typically, sIBM patients progress by losing up to 2.0 to 2.5 points on the IBMFRS score per eight months. Based on these results, we are conducting a Phase 2/3 registrational trial in sIBM, for which we expect top-line results in the first half of 2021.

Arimoclomol for the Treatment of Neurological Gaucher Disease

We are also developing arimoclomol for the treatment of neurological manifestations of Gaucher disease. Gaucher disease is a rare, inherited metabolic disorder causing certain sugar containing fats to abnormally accumulate in the lysosomes of cells, especially within cells of the blood system and nerve cells, thereby affecting organs such as the brain, bone marrow, spleen and liver. The typical systemic symptoms of

Gaucher disease, which can appear at any age, include an abnormally enlarged liver and/or spleen and low levels of circulating red blood cells and platelets. These systemic symptoms are generally treated by existing enzyme replacement therapy, or ERT, and substrate reduction therapy, or SRT. The neurological symptoms, although heterogeneous, may include muscle rigidity, loss of movement, seizures, cognitive impairment and vision problems and are insufficiently treated by these therapies, given their limited ability to cross the blood-brain barrier. Gaucher disease is the most common LSD, with an estimated incidence of one in 50,000, and affects up to an estimated 15,000 individuals in the United States and Europe combined. Gaucher disease has three subtypes, which are, in part, distinguished by the presence or absence of neurological symptoms. Type 1 Gaucher disease is the most common form of the disease, can occur at any age and initially do not present with neurological symptoms. It is now estimated that up to 30% of patients diagnosed with Gaucher Type 1 develop neurological symptoms later in life, including 5% to 7% showing Parkinsonism symptoms. We believe this is due to individuals with Gaucher Type 1 living much longer as a result of availability of ERT and SRT therapy. Patients with Gaucher disease Type 2 or Type 3 present with acute neurological symptoms (Type 2) or develop chronic neurological disease (Type 3). Results of preclinical studies demonstrated an increase in HSP70, a key member of the HSP family, and refolding, maturation and correct intracellular localization of glucocerebrosidase, or GCase, an enzyme responsible for breaking down certain lipids and for which reduced activity causes Gaucher disease. Based on these results, we initiated a randomized, double-blinded, dose-ranging Phase 2 clinical trial of arimoclomol for the treatment of neurological Gaucher disease in June 2018, which completed enrollment in August 2019. We reported top-line Phase 2 results in June 2020, in which arimoclomol was observed to be well-tolerated and demonstrated a relative reduction in serum chitotriosidase activity from baseline to six months, the primary endpoint, across all dosages compared to placebo ranging from -12% to -29%, although statistical significance was not achieved ($p=0.4$). However, we observed a statistically significant and dose-dependent reduction in liver size ranging from -15% to -20% relative to placebo (dose trend analysis $p<0.05$). Based on these results, we intend to advance into pivotal-stage clinical development for arimoclomol in neurological Gaucher disease.

Our Commercial Organization, Leadership Team and Intellectual Property Position

If we are successful in our initial indications of NPC, ALS, sIBM and neurological Gaucher disease, we estimate that arimoclomol could benefit up to approximately 100,000 patients in the United States and Europe. However, based on the significant data we have generated to date, we believe that arimoclomol's unique mechanism of action has potential therapeutic application across a broader range of lysosomal and neurodegenerative orphan diseases, several of which address significantly larger patient populations and target markets than those we are currently pursuing in our clinical development programs. Beyond the registrational clinical trials in ALS and sIBM, we are undertaking preclinical studies to explore and inform us on the opportunity to address additional indications, including GCase-deficient Parkinson's disease among others. If we are also successful in the GCase-deficient Parkinson's disease indication in addition to the other four initial indications, we estimate that arimoclomol could benefit up to approximately 500,000 patients in the United States and Europe.

We are currently building a highly specialized commercial sales organization in anticipation of a potential launch of arimoclomol for the treatment of NPC in the United States and Europe. Our plans include having a commercial infrastructure that is supported by high-touch patient support initiatives and established relationships with the concentrated number of treatment centers that address NPC in advance of a potential launch in the United States. We have had significant and positive engagement with payors, physicians and patient advocacy organizations. We have already successfully established our EAP for NPC patients, which continues to provide us with significant insights to enhance our broader commercial readiness plans. In NPC, there are approximately 25 to 50 highly specialized centers in the United States and Europe that cover the vast majority of patients, and we believe this market can be effectively addressed with our own targeted commercial field force of approximately 20 to 30 representatives. If arimoclomol is approved for additional diseases, we plan to leverage

our core orphan disease commercial infrastructure and expertise to efficiently address the relevant patient populations. We are also actively engaging with key ALS, sIBM and Gaucher disease patient advocacy groups.

We were founded in 2009 based on a scientific discovery published in *Nature* on the function of HSPs co-authored by Dr. Thomas Kirkegaard Jensen, who serves as our Chief Scientific Officer. We are led by our Chief Executive Officer, Kim Stratton, our Chief Financial Officer, Anders Vadsholt, our Chief Medical Officer, Dr. Thomas Blaettler, and Dr. Jensen. Each member of our management team has extensive experience in the global biopharmaceutical industry. Our management team's experience in clinical drug development, manufacture and commercialization, particularly in the rare disease drug space, provide us with valuable insights that we believe will help us maximize the value of arimoclomol and our foundational expertise in HSPs. Our management team has a highly successful track record of launching and commercializing products in more than fifteen rare diseases across the United States and international markets at leading global pharmaceutical firms such as Shire Pharmaceuticals, Novartis, Roche and Bristol-Myers Squibb. We are supported by leading global life sciences investors, including Consonance Capital, Coöperative Aescap Ventures, Sunstone Life Science Ventures and, through a joint investment vehicle Orpha Pooling N.V., Life Science Partners and the ALS Investment Fund. Our board of directors also includes industry experts with experience at companies focused on rare diseases, including Genzyme and Swedish Orphan Biovitrum. We completed the initial public offering of our ordinary shares in Denmark in November 2017. Our ordinary shares currently trade on Nasdaq Copenhagen under the symbol "ORPHA." Our initial public offering in Denmark raised gross proceeds of DKK 600 million (\$90 million). In February 2020, we also raised gross proceeds of DKK 745 million (\$112 million) in a directed issue and private placement in Europe and the United States.

We have retained our exclusive worldwide marketing and distribution rights, and we have a patent portfolio covering the use of arimoclomol in the treatment of NPC and Gaucher disease until 2029, with possible extensions to 2032 in the United States and 2034 in the European Union based on method of use patents, and for the treatment of ALS until 2024, as well as orphan drug exclusivity, if approved, for seven years in the United States and ten years in the European Union for NPC, ALS and sIBM.

Our Competitive Strengths

We believe we have the potential to transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases. Our key competitive strengths include:

- *Deep scientific expertise and discovery capabilities in the field of HSPs and lysosomal biology*
- *Our product candidate, arimoclomol, which has exhibited compelling results in clinical trials of neurodegenerative orphan diseases*
- *Potential near-term approval of arimoclomol in our first targeted ultra-orphan indication of NPC*
- *Arimoclomol's pipeline-in-a-product potential, with registrational clinical trials ongoing in two additional orphan indications and our intention to advance into pivotal-stage clinical development in a third*
- *A highly experienced, rare disease focused management team*
- *Multiple regulatory designations that support the importance of arimoclomol and potentially provide accelerated approval pathways*
- *Exclusive worldwide marketing and distribution rights, supported by intellectual property protections and additional regulatory exclusivity protections*

Our Strategy

Our goal is to leverage our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial experience and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases. The key pillars of our business strategy include:

- *Secure regulatory approvals in the United States and European Union for arimoclomol in NPC*
- *Maximize the commercial potential of arimoclomol in NPC and beyond*
- *Complete registrational studies and obtain regulatory approval of arimoclomol for ALS and sIBM and advance into pivotal-stage clinical development in Gaucher disease*
- *Actively expand and advance our pipeline, including developing arimoclomol for additional indications and discovering additional new molecular entities*

Risks Associated With Our Business

Our business is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this prospectus summary. Some of these risks are:

- We have not received approval for any product candidate for commercial sale and, as a result, we have never generated any revenue and have incurred significant financial losses, and expect to continue to incur significant financial losses in the future, which makes it difficult to assess our future viability.
- Even if the global offering is successful, we will require additional capital in the future, which may not be available to us on commercially favorable terms, or at all.
- Our business, operations and clinical development plans and timelines could be adversely affected by the effects of health epidemics, including the recent COVID-19 pandemic, on the manufacturing, clinical trial and other business activities performed by us or by third parties with whom we conduct business, including our contract manufacturers, contract research organizations, or CROs, shippers and others.
- Clinical trials being conducted to test our product candidate, arimoclomol, may not obtain the desired safety and efficacy results or may be delayed or more costly than anticipated. In addition, our completed clinical trials have been small, each with less than 100 persons; in larger clinical trials, additional risks, including safety risks or lack of efficacy, may materialize.
- As we have focused our efforts on the development of arimoclomol, we are currently highly dependent on obtaining and maintaining regulatory approval for arimoclomol and the potential success of this one product candidate.
- Because we are developing arimoclomol for the treatment of diseases in which there is little clinical experience, the FDA or other regulatory authorities may not consider the endpoints of our clinical trials to predict or provide clinically meaningful results.
- Arimoclomol may be shown to cause undesirable side effects or other adverse events that could delay or prevent its regulatory approval, limit its commercial profile or result in significant negative consequences following regulatory approval, if such approval is granted.

- Fast track, orphan drug, and breakthrough therapy designation by the FDA and EMA may not actually lead to a faster development or regulatory review or approval process, and does not assure or increase the likelihood of FDA or EMA approval of arimoclomol.
- Even if arimoclomol receives marketing approval, we may not be successful in our commercialization efforts and arimoclomol may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community necessary for commercial success.
- If we are unable to achieve and maintain adequate levels of coverage or reimbursement for arimoclomol, if commercialized, or any future product candidates we may seek to commercialize, or if patients are left with significant out-of-pocket costs, our commercial success may be severely hindered.
- We are currently dependent on third parties for manufacturing arimoclomol. If such third-party manufacturers do not deliver their manufactured products in time, this could have a material adverse effect on our business.
- Our business operations and current and future relationships with healthcare professionals, principal investigators, consultants, customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to substantial penalties.
- If we are unable to obtain and maintain our marketing and distribution rights for arimoclomol, as well as patent protection for our technology and current or future product candidates, if we are unable to obtain or maintain orphan drug designation, if we are unable to benefit from orphan drug exclusivity, or if the scope of the marketing and distribution rights or patent protection obtained is not sufficiently broad, we may not be able to compete effectively in our markets.
- We may not be able to attract, integrate, manage and retain qualified personnel or key employees or our employees may not be able to come to work as a result of COVID-19.
- As a foreign private issuer and as permitted by the listing requirements of Nasdaq, we will rely on certain home country corporate governance practices rather than the corporate governance requirements of Nasdaq.

Implications of Being an Emerging Growth Company

As a company with less than \$1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company,” as defined in the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

- a requirement to include only two years of audited financial statements and only two years of related Management’s Discussion and Analysis of Financial Condition and Results of Operations disclosure; and
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act.

We may choose to take advantage of some but not all of these reduced burdens, and therefore the information that we provide holders of ordinary shares and ADSs may be different than the information you might receive from other public companies in which you hold equity. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards applicable to public companies in the United States. As a public company in Denmark, we are unable to take advantage of the extended transition period.

We may take advantage of these provisions for up to five years from the initial public offering of our ADSs or such earlier time that we are no longer an emerging growth company. We will cease to be an emerging growth company upon the earliest of the following:

- the last day of the first fiscal year in which our annual revenues were at least \$1.07 billion;
- the last day of the fiscal year following the fifth anniversary of the initial public offering of our ADSs;
- the date on which we have issued more than \$1 billion of non-convertible debt securities over a three-year period; and
- the last day of the fiscal year during which we meet the following conditions: (i) the worldwide market value of our common equity securities held by non-affiliates as of our most recently completed second fiscal quarter is at least \$700 million, (ii) we have been subject to U.S. public company reporting requirements for at least 12 months and (iii) we have filed at least one annual report as a U.S. public company.

Implications of Being a Foreign Private Issuer

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

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

In addition, we will not be required to file annual reports and financial statements with the SEC as promptly as U.S. domestic companies whose securities are registered under the Exchange Act, and are not required to comply with Regulation FD, which restricts the selective disclosure of material information.

Both foreign private issuers and emerging growth companies are also exempt from certain more stringent executive compensation disclosure rules for U.S. public companies under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Even if we no longer qualify as an emerging growth company, so long as we remain a foreign private issuer, we will continue to be exempt from such compensation disclosures.

Corporate History and Information

We were incorporated on June 19, 2009 as a private limited liability company under Danish law and later converted into a Danish public limited liability company on October 20, 2017. We are registered with the Danish Business Authority (Erhvervsstyrelsen) in Copenhagen, Denmark under company registration number (CVR) no. 32266355. We were publicly listed on Nasdaq Copenhagen in November 2017.

Our headquarters and principal executive offices are located at Ole Maaløes Vej 3, DK-2200 Copenhagen N, Denmark, and our telephone number is +45 39 17 82 72. Our website address is www.orphazyme.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus, and you should not consider any information contained in, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase ordinary shares (including ordinary shares in the form of ADSs) in the global offering. We have included our website address as an inactive textual reference only.

identical. As a result, the depositary will be able to vote such shares in a manner to reflect the preferences of the ADS holders, thereby effectively permitting pass-through voting by ADS holders who indicate their preference to the depositary in accordance with and subject to the depositary's procedures. The depositary will try, to the extent practical, to vote the shares underlying the ADSs as instructed by the ADS holders.

You may surrender your ADSs to the depositary for cancellation in exchange for ordinary shares. The depositary will charge you fees for any cancellation.

We may amend or terminate the deposit agreement without your consent. If you continue to hold your ADSs after an amendment to the deposit agreement, you agree to be bound by the deposit agreement as amended.

To better understand the terms of the ADSs, you should carefully read the "Description of American Depositary Shares" section of this prospectus. You should also read the deposit agreement, which is filed as an exhibit to the registration statement that includes this prospectus.

ADS depositary

The Bank of New York Mellon.

Use of proceeds

We estimate that the net proceeds to us from the global offering, after deducting the estimated underwriting commissions and estimated offering expenses payable by us, to be approximately \$90.4 million, or \$104.4 million if the underwriters exercise their option in full to purchase additional ordinary shares (including ordinary shares in the form of ADSs), based on an assumed initial offering price of DKK 82.70 (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 (assuming a DKK/U.S. dollar exchange rate of 6.2967 DKK per \$1.00 as of September 17, 2020).

We intend to use the net proceeds from the global offering, together with our existing cash, to continue the regulatory approval process for and fund the commercial launch, if approved, of arimoclomol for the treatment of NPC, advance the clinical development of arimoclomol for the treatment of ALS, sIBM and neurological Gaucher disease and for working capital and general corporate purposes, including to fund the development of our next generation of HSP amplifiers.

See "Use of Proceeds" for a more complete description of the intended use of proceeds from the global offering.

Dividend Policy

We do not expect to pay dividends in the foreseeable future. If, however, we declare dividends on our ordinary shares, the depositary will distribute the cash dividends and other distributions it receives on

our ordinary shares after deducting its fees and expenses in accordance with the terms set forth in the deposit agreement.

Risk factors

See “Risk Factors” and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in the ADSs.

Listing

The ADSs have been approved for listing on the Nasdaq Global Select Market under the symbol “ORPH.” Our ordinary shares are admitted to trading on Nasdaq Copenhagen under the symbol “ORPHA.”

The number of ordinary shares to be outstanding after the global offering is based on 27,044,929 of our ordinary shares outstanding as of June 30, 2020 and excludes:

- subject to certain vesting criteria being satisfied, up to 242,950 ordinary shares that may be issued to cover the delivery of shares to participants of our long-term incentive program, or the LTIP, as of June 30, 2020;
- up to 26,336 ordinary shares underlying unvested or unexercised restricted share units, or RSUs, as of June 30, 2020; and
- bonus shares that we have agreed to issue pursuant to a license agreement with the University of Kansas and UCL Business PLC as described in “Business—Material Agreements.”

Unless otherwise indicated, all information contained in this prospectus also reflects and does not take into account:

- any issuance of ordinary shares to cover our obligations under the LTIP and additional grants under the LTIP or any additional grants of RSUs after June 30, 2020; and
- any exercise by the underwriters of their option to purchase up to 1,142,421 additional ordinary shares (including ordinary shares in the form of ADSs) in the global offering.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following tables set forth our summary consolidated financial data for the periods indicated. We have derived the summary consolidated statements of profit or loss and other comprehensive income data for the years ended December 31, 2019 and 2018 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statements of financial position and other comprehensive income data for the six months ended June 30, 2020 and 2019 and the summary consolidated statements of financial position data as of June 30, 2020 from the unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited interim condensed consolidated financial statements on the same basis as the audited consolidated financial statements, and the unaudited financial data include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of our consolidated financial position and results of operations as of and for the periods presented.

Our consolidated financial statements are prepared and presented in accordance with IFRS, as issued by the IASB. IFRS differ in certain significant respects from U.S. GAAP. Our historical results are not necessarily indicative of results expected for future periods and our operating results for the six months ended June 30, 2020 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2020.

The summary consolidated financial data set forth below should be read together with our consolidated financial statements and the related notes to those statements, as well as the sections of this prospectus titled “Capitalization,” “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Summary Consolidated Statements of Profit or Loss and Other Comprehensive Income Data:

(In thousands, except per share data)	Six Months Ended June 30,			Years Ended December 31,		
	2020	2019	2018	2019	2018	2018
	\$ (1)	DKK	DKK	\$ (1)	DKK	DKK
Research and development expenses	(25,179)	(166,980)	(141,710)	(43,037)	(285,413)	(196,525)
General and administrative expenses	(11,848)	(78,575)	(23,345)	(7,621)	(50,541)	(35,127)
Operating loss	(37,027)	(245,555)	(165,055)	(50,658)	(335,954)	(231,652)
Financial income	19	126	152	48	316	5
Financial expenses	(1,201)	(7,967)	(1,500)	(1,110)	(7,359)	(3,453)
Loss before tax	(38,209)	(253,396)	(166,403)	(51,720)	(342,997)	(235,100)
Income tax benefit	299	1,981	2,495	829	5,500	5,500
Net loss for the period	(37,911)	(251,415)	(163,908)	(50,891)	(337,497)	(229,600)
Exchange difference from translation of foreign operation, net of tax DKK 0	(20)	(135)	(19)	10	67	42
Total comprehensive loss	(37,930)	(251,550)	(163,927)	(50,881)	(337,430)	(229,558)
Loss per share (2)						
Basic loss per share	(1.49)	(9.88)	(8.20)	(2.54)	(16.87)	(11.49)
Diluted loss per share	(1.49)	(9.88)	(8.20)	(2.54)	(16.87)	(11.49)

(1) Translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020.

- (2) See Note 4.3 to our audited consolidated financial statements included elsewhere in this prospectus for further details regarding the calculation of basic and diluted loss per share.

Summary Consolidated Statement of Financial Position:

<u>(In thousands)</u>	<u>As of June 30, 2020</u>			
	<u>\$ (1)</u>	<u>Actual</u>	<u>DKK</u>	<u>As Adjusted (2)</u>
	<u>\$ (1)</u>	<u>DKK</u>	<u>\$ (1)</u>	<u>DKK</u>
Cash	92,049	610,448	177,907	1,179,842
Working capital (3)	77,865	516,384	163,723	1,085,778
Total assets	101,987	676,360	187,846	1,245,754
Share capital	4,078	27,045	5,227	34,661
Total equity	76,319	506,135	162,178	1,075,529

- (1) Translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020.
- (2) Gives effect to the sale of 7,616,146 ordinary shares (including ordinary shares in the form of ADSs) in the global offering at the assumed initial offering price of DKK 82.70 per ordinary share, which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020.
- (3) We define working capital as current assets less current liabilities.

The as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial offering price and other terms of our global offering determined at pricing. Each DKK 6.2967 (\$1.00) increase or decrease in the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 (assuming a DKK/U.S. dollar exchange rate of 6.2967 DKK per \$1.00 as of September 17, 2020), would increase or decrease, as applicable, the as adjusted amount of each of cash, working capital, total assets, total liabilities and total equity by DKK 44.6 million (\$7.1 million), assuming that the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable to us. Similarly, each increase or decrease of 1.0 million ordinary shares (including ordinary shares in the form of ADSs) offered by us at the assumed initial offering price would increase or decrease, as applicable, each of cash, working capital, total assets and total equity by DKK 76.9 million (\$12.2 million), assuming the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 (assuming a DKK/U.S. dollar exchange rate of 6.2967 DKK per \$1.00 as of September 17, 2020), remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our ordinary shares and ADSs involves a high degree of risk. Before you invest in the ordinary shares or ADSs, you should carefully consider the risks described below together with all of the other information contained in this prospectus, including our financial statements and the related notes included elsewhere in this prospectus and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. If any of the following risks actually occurs, our business, results of operations, cash flows, financial condition and/or prospects could suffer materially. In such event, the trading price of the ordinary shares and ADSs could decline, which would cause you to lose all or part of your investment. Please also see “Special Note Regarding Forward-Looking Statements.”

Risks Related to our Financial Position and Capital Needs

We have not received approval for any product candidate for commercial sale and, as a result, we have never generated any revenue and have incurred significant financial losses, and expect to continue to incur significant financial losses in the future, which makes it difficult to assess our future viability.

We have not had any product candidates approved for commercial sale. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk, including risks related to the regulatory approval process for arimoclomol. To date, we have focused on research and development activities on developing arimoclomol, as described in “Business.” Since our inception in 2009, we have incurred significant losses, which have substantially resulted from costs related to our research and development programs and general and administrative activities. Our net loss for the year ended December 31, 2019 was DKK 337.5 million (\$50.9 million) and for the six months ended June 30, 2020 was DKK 251.4 million (\$37.9 million). Going forward, we expect to continue to incur significant losses from our operations.

We anticipate that our expenses will increase substantially if, and as, we, for instance:

- continue the ongoing and planned development of arimoclomol for multiple indications;
- initiate, conduct and complete ongoing, anticipated or future preclinical studies and clinical trials for our current and future product candidates;
- seek marketing approvals for product candidates that successfully complete clinical trials;
- pay milestone and royalty fees to CytRx Corporation, or CytRx, and other third parties from whom we have licensed intellectual property in accordance with the terms of the applicable license agreement;
- establish a sales, marketing and distribution infrastructure to commercialize products for which we may obtain marketing approval;
- continue to build a portfolio of product candidates through the acquisition or in-license of product candidates or technologies;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts; and
- incur additional legal, accounting and other expenses associated with operating as a dual-listed public company.

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If annual operating expenses increase significantly over the next several years and we are not able to commercialize our product candidate, we will have less financial resources available for our other business prospects, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Even if the global offering is successful, we will require additional capital in the future, which may not be available to us on commercially favorable terms, or at all.

We expect to incur significant expenses and operating losses over the next several years and we will need to raise additional capital in the future. We have so far been financed by funds provided by debt providers or invested by our shareholders. Based on the current operating plan and the existing capital resources together with the anticipated net proceeds from the global offering, we expect to be able to fund our operating plan for at least the next 24 months. However, the operating plan may change as a result of many factors currently unknown, and it may be necessary to seek additional funds sooner than anticipated. The future funding requirements will depend on many factors, including the progress, timing, scope, results and costs of our preclinical studies and clinical trials, including the ability to enroll patients in a timely manner for clinical trials as well as the time and cost necessary to obtain regulatory approvals for arimoclomol and any future product candidates. For example, we will require additional capital in the future in order to obtain regulatory approval for arimoclomol in ALS and sIBM. In addition, funding requirements will also depend on the progress in commercialization and promotion of arimoclomol as well as the manufacturing, selling and marketing costs associated with arimoclomol, including the cost and timing of building sales and marketing capabilities. This extends to the sales price and the availability of adequate third-party coverage and reimbursement for our products, the number and scope of preclinical and discovery programs that we may decide to pursue or initiate, the time and cost necessary to respond to technological and market developments and the costs of filing, prosecuting, maintaining, defending and enforcing any patent claims and other intellectual property rights, including litigation costs and the outcome of such litigation. We may also engage in future acquisitions or strategic partnerships, which may increase our capital requirements, dilute our shareholders if we issue equity securities, cause us to incur debt or assume contingent liabilities, divert management's attention and subject us to other risks.

We may seek to raise new capital in the future through public or private debt or equity financings by issuing additional ordinary shares or ADSs, debt or equity securities convertible into shares, or rights to acquire these securities.

Any additional financing that we could seek may not be available on favorable terms or at all. For example, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our future plans and our ability to execute our strategy could be adversely affected, which in turn could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Our business, operations and clinical development plans and timelines could be adversely affected by the effects of health epidemics, including the recent COVID-19 pandemic, on the manufacturing, clinical trial and other business activities performed by us or by third parties with whom we conduct business, including our contract manufacturers, CROs, shippers and others.

Our business has been and could be further adversely affected by health epidemics wherever we have clinical trial sites or other business operations. In addition, health epidemics could cause significant disruption in the operations of third-party manufacturers, CROs and other third parties upon whom we rely. For example, in December 2019, a novel strain of coronavirus, SARS-CoV-2, causing a disease referred to as COVID-19, was

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reported to have surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple countries worldwide, including the United States. In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic, and the U.S. government ordered the closure of all non-essential businesses, imposed social distancing measures, “shelter-in-place” orders and restrictions on travel between the United States, Europe and certain other countries. The global pandemic and government measures taken in response have also had a significant impact on businesses and commerce worldwide, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended across a variety of industries; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. On March 18, 2020 the FDA issued updated industry guidance for conducting clinical trials during the COVID-19 pandemic, which requires clinical trial sponsors to consider the need to delay or cease patient recruitment, change protocol regarding patient monitoring and assessment that minimizes in-person visits, alternative administration of certain investigational products due to compromised clinical sites and to put in place new processes or modify existing processes in consultation with the FDA that would ensure the safety of clinical trial participants. In connection with COVID-19, we temporarily closed our executive offices and implemented optional work-from-home policies for most employees. The effects of government orders and our work-from-home policies may negatively impact productivity, disrupt our business and delay our clinical programs and timelines, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct our business in the ordinary course.

We depend on a global supply chain to manufacture product candidates used in our preclinical studies and clinical trials. Quarantines, “shelter-in-place” and similar government orders, or the expectation that such orders, shutdowns or other restrictions could occur, whether related to COVID-19 or other infectious diseases, could impact personnel at third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials, which could disrupt our supply chain.

If our relationships with our suppliers or other vendors are terminated or scaled back as a result of the COVID-19 pandemic or other health epidemics, we may not be able to enter into arrangements with alternative suppliers or vendors or do so on commercially reasonable terms or in a timely manner. Switching or adding additional suppliers or vendors involves substantial cost and requires management time and focus. In addition, there is a natural transition period when a new supplier or vendor commences work. As a result, delays may occur, which could adversely impact our ability to meet our desired clinical development and any future commercialization timelines. Although we carefully manage our relationships with our suppliers and vendors, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not harm our business.

In addition, our preclinical studies and clinical trials have been and may continue to be affected by the COVID-19 pandemic. Clinical site initiation, patient enrollment and activities that require visits to clinical sites, including data monitoring, have been and may continue to be delayed due to prioritization of hospital resources toward the COVID-19 pandemic or concerns among patients about participating in clinical trials during a pandemic. Some patients may have difficulty following certain aspects of clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. For example, some patients, including patients in our Phase 3 registrational clinical trial in ALS, may not be able to attend follow-ups and comply with trial protocols. These challenges have and in the future may continue to also increase the costs of completing our clinical trials. Similarly, if we are unable to successfully recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19 or experience additional restrictions by their institutions, city or state, our clinical trial operations could be adversely impacted. In addition, access to arimoclomol as a treatment for NPC, which was announced in January 2020 to be available through the EAP, in the United States, was delayed due to the COVID-19 pandemic. Furthermore, the QTc clinical trial required to support our NDA for NPC has been delayed due to COVID-19, which may delay the timing of FDA approval for NPC.

The spread of COVID-19, which has caused a broad impact globally, may materially affect us economically. While the potential economic impact brought by, and the duration of, COVID-19 may be difficult

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to assess or predict, a widespread pandemic has resulted in significant disruption of global financial markets, resulting in an economic downturn that could continue to significantly impact our business and operations and may reduce our ability to access capital, which could in the future negatively affect our liquidity. In addition, a recession or market correction resulting from the spread of COVID-19 could materially affect our business and the value of the ordinary shares and ADSs.

Further, we may experience additional disruptions that could severely impact our business and clinical trials, including:

- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption or delays in the operations of the FDA or other regulatory authorities, which may impact review and approval timelines;
- limitations on employee resources that would otherwise be focused on the conduct of our preclinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;
- risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events; and
- refusal of the FDA to accept data from clinical trials in these affected geographies.

These and similar, and perhaps more severe, disruptions in our operations could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

The global pandemic of COVID-19 continues to evolve rapidly. The ultimate impact of the COVID-19 pandemic or a similar health epidemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, our clinical trials, healthcare systems or the global economy as a whole. However, these effects could have a material impact on our operations, and we continue to monitor the COVID-19 situation closely. To the extent the COVID-19 pandemic adversely affects our business, results of operations, cash flows, financial condition and/or prospects, it may also have the effect of heightening many of the other risks described in this “Risk Factors” section.

Our indebtedness may limit our flexibility in operating our business and could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

As of June 30, 2020, we had €9.0 million of principal balance, or the Term Loan, outstanding under the loan facility agreement, or the Loan Agreement, with Kreos Capital VI (UK) Limited, or Kreos. We are required to repay the Term Loan over 42 months with the first 12 months requiring interest only payments at a nominal annual fixed interest rate of 9.75% and the remaining 30 months requiring equal installments comprising principal and interest. Early repayment of the borrowed amounts may be made in whole but not in part, with the repayment amount being equal to the principal outstanding plus the sum of all the interest repayments that would have been paid throughout the remainder of the loan discounted at an annual rate of 4.0%. The Loan Agreement also provides that we will pay Kreos a facilitation fee upon the request of Kreos, which request may be made in its sole discretion at any time prior to the earlier to occur of August 27, 2024 and the date of delisting of our shares, including ADSs representing our ordinary shares, from a securities exchange. The facility fee is equal to the greater of (i) €0.9 million and (ii) the percentage increase in our share price between the 30-day volume-weighted average share price on the date of the Loan Agreement and the closing share price on the day

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immediately preceding the date of the notification applied to the aggregate amount borrowed. We have also agreed to pay Kreos an end of loan payment in an amount equal to 3% of the amount drawn under the first tranche. The amounts due under the Loan Agreement are secured by certain of our assets, including our intellectual property rights, pursuant to a floating charge agreement registered with the Danish personal register in the initial principal amount of €9.0 million, our patents registered in Germany, the United Kingdom and the United States, and our shares in our U.S. subsidiary. Our obligations under the Loan Agreement are guaranteed by our U.S. subsidiary.

In order to service this indebtedness and any additional indebtedness we may incur in the future, we need to generate cash. Our ability to generate cash is subject, in part, to our ability to successfully execute our business strategy, as well as general economic, financial, competitive, regulatory and other factors beyond our control. It cannot be guaranteed that our business will be able to generate sufficient cash flow or that future borrowings or other financings will be available to us in an amount sufficient to enable us to service our indebtedness and fund our other liquidity needs. To the extent we are required to use cash from operations or the proceeds of any future financing to service our indebtedness instead of funding working capital, capital expenditures or other general corporate purposes, we will be less able to plan for, or react to, changes in our business, industry and in the economy generally. This will place us at a competitive disadvantage compared to our competitors that have less indebtedness.

In addition, the Loan Agreement contains, and any agreements evidencing or governing other future indebtedness may contain, certain covenants that limit our ability to engage in certain transactions that may be in our long-term best interests. Subject to certain limited exceptions, these covenants limit our ability to, among other things:

- sell, lease, convey, transfer, assign, license or otherwise of or deal with all or any material part of our property, assets or undertaking;
- sell, assign transfer or otherwise dispose of any assets that are subjects to liens under the Loan Agreement, any of our material assets or any share therein
- incur or allow to remain outstanding any indebtedness
- create or permit to subsist any liens; and
- declare and/or make or agree to make any distribution by way of dividend or otherwise, without the written consent of Kreos.

While we have not previously breached and are not currently in breach of these or any of the other covenants contained in the Loan Agreement, there can be no guarantee that we will not breach these covenants in the future. Our ability to comply with these covenants may be affected by events and factors beyond our control. In the event that we breach one or more covenants, our lender may choose to declare an event of default and require that we immediately repay all amounts outstanding, terminate any commitment to extend further credit and foreclose on the collateral granted to it to collateralize such indebtedness. The occurrence of any of these events could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Risks Related to Development of Our Product Candidates

Clinical trials being conducted to test our product candidate, arimoclomol, may not obtain the desired safety and efficacy results or may be delayed or more costly than anticipated.

Prior to launching a pharmaceutical product into the market, its safety and efficacy for treatment of patients must be ascertained through execution of certain preclinical studies and clinical trials conducted in

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accordance with the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use, the FDA, the EMA, and other applicable regulatory authorities' legal requirements, regulations and guidelines, including good laboratory practices, an international standard meant to harmonize the conduct and quality of non-clinical studies and the reporting of findings, as well as good clinical practices, or GCP, an international ethical and scientific quality standard for designing, conducting, recording and reporting trials that involve the participation of human subjects. Conducting such trials is complex, costly and time-consuming, and neither the results nor the timing can be predicted with any certainty. Some of the clinical trials that we currently sponsor relate to pediatric diseases for which there are additional regulatory requirements.

The performance of clinical trials is associated with risks. We may experience numerous unforeseen events prior to, during or as a result of clinical trials that could delay or prevent our ability to receive marketing approval or commercialize arimoclomol, including:

- effects of the ongoing COVID-19 pandemic, including delays in clinical trial enrollment, patient treatment and data processing, as well as complications with commercial suppliers, clinical testing sites and/or CROs;
- the FDA, the EMA or other comparable regulatory authority may disagree as to the number, design or implementation of our clinical trials, or may not interpret the results from clinical trials as we do;
- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may not reach agreement on acceptable terms with prospective clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different clinical trial sites;
- clinical trials of arimoclomol may produce negative or inconclusive results;
- we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of arimoclomol may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate, participants may drop out of these clinical trials at a higher rate than we anticipate or we may fail to recruit eligible patients to participate in a trial;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- regulators may issue a clinical hold, or regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of arimoclomol may be greater than we anticipate;
- the supply or quality of arimoclomol or other materials necessary to conduct clinical trials of arimoclomol may be insufficient or inadequate;
- arimoclomol may have undesirable side effects or other unexpected characteristics causing us or our investigators, regulators or institutional review boards to suspend or terminate the clinical trials; and

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

There is a risk that the clinical trials that we currently sponsor will not confirm previous results or will not demonstrate sufficient evidence of safety and efficacy to receive requisite regulatory approvals. This risk is compounded by the fact that, thus far, we have only conducted relatively small Phase 2/3 and Phase 2 clinical trials, only one of which was designed to measure efficacy. Such clinical trials may not lead to pharmaceutical products that can be effectively commercialized. Adverse or inconclusive results may, despite initially promising results, result in arimoclomol not receiving requisite approvals for marketing and sale, and there is a risk that additional clinical trials will be required to obtain such approvals or that our clinical development program will be required to be altered, which would result in increased costs, significant delays to filing with regulatory authorities, filing for a narrower indication than previously anticipated or the abandonment of efforts to commercialization of arimoclomol. For example, even though we did not meet the primary endpoint in our Phase 2 clinical trial for Gaucher disease, based on other results in this clinical trial, including the statistically significant dose-dependent reduction in liver size and dose-dependent reduction in spleen size, we intend to advance arimoclomol into pivotal-stage clinical development in neurological Gaucher disease. However, it is possible that the FDA may require us to conduct further clinical trials. Further, even though we believe chitotriosidase is of limited value moving forward and we no longer intend to use chitotriosidase as a key endpoint in our clinical trials in Gaucher disease, it is possible that the FDA may require us to alter our intended design for the Phase 3 trial for Gaucher disease.

In addition, the FDA, the EMA or other regulatory authorities may not approve or authorize the labeling that we believe is necessary or desirable for the successful commercialization of a product.

All of our current clinical trials are studying the same chemical compound, arimoclomol, but for different indications. There is a risk, therefore, that any unexpected findings, including serious adverse events, in one clinical trial may have a “spill-over” effect on other trials, in particular if the finding is related to the compound’s safety and tolerability. An adverse or inconclusive finding in one trial, therefore, may halt or significantly delay our entire clinical development portfolio. If our ongoing clinical trials are unsuccessful, we may be unable to expand our development of arimoclomol to other indications.

Designing and conducting clinical trials for orphan drugs involves additional risks because, for instance, the relevant indications are not well characterized and experience with treatment of orphan diseases is limited. In addition, patients in our clinical trials may have a clinically relevant medical condition that may make conducting the clinical trial difficult and/or confound an assessment of the effects of the experimental therapy and its adverse events. Such risks may also include delays and increased costs.

As clinical product development can be affected by unforeseen delays, increased costs, unexpected adverse events, unforeseen suspensions and unfavorable results, these circumstances could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

In addition, we depend on our ability to enter into agreements with CROs, conducting clinical trials with respect to arimoclomol. Through our CROs, we are in a close, ongoing dialogue with physicians, who are relevant as investigators. However, if we are not able, through our CROs, to enter into the necessary agreements with respect to clinical trials, it may have a material adverse effect on our ability to complete such clinical trials. Further, if the counterparties to our sponsored clinical trial agreements do not carry out their obligations or do so within the agreed deadlines, the clinical trials may be delayed, terminated or deemed unsuccessful, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Most of our clinical trials conducted have been small, each with less than 100 persons, and have advanced through Phase 1 and Phase 2. Our later-phase clinical trials are being conducted with larger patient

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populations, such as our recently-enrolled Phase 3 clinical trial evaluating arimoclomol for the treatment of ALS, which has enrolled 245 patients. In these trials, additional risks, including previously unidentified low incidence safety risks, safety risks associated with high-dose long-term treatment or lack of efficacy may materialize.

If the above risks were to materialize, it could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

As we have focused our efforts on the development of arimoclomol, we are currently highly dependent on obtaining and maintaining regulatory approval for arimoclomol and the potential success of this one product candidate.

To date, we have focused substantially all of our efforts on the development of arimoclomol. We are currently conducting preclinical studies and clinical trials based on the arimoclomol molecule. In September 2020, the FDA sent us a letter in which it accepted our NDA for arimoclomol for NPC with priority review and set a target action date of March 17, 2021 under the PDUFA to complete its review of our NDA; in the letter, the FDA also notified us that, while conducting its filing review, it has identified potential review issues, without specifying what such issues are, that we may need to address before obtaining FDA approval. Despite such acceptance and priority review, we can provide no assurance if or when we would receive FDA approval for arimoclomol for NPC. Further, as part of its review process, the FDA may request additional information and data, require us to make modifications to ongoing NPC-related clinical trials, manufacturing or other processes, run additional studies or clinical trials or incur significant additional expenditures in order to obtain such approval. If arimoclomol does not obtain approval for the indications we are currently exploring, we will have spent substantial time and financial resources without receiving a return on investment. As a result, if arimoclomol does not become a success, this will have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We are highly dependent on obtaining and maintaining required regulatory approvals and may not receive such approvals.

Before we can start commercializing arimoclomol, a number of regulatory registrations and approvals must be obtained. For instance, approvals from the authorities and ethical committees as well as consents from patients participating in our clinical trials are required before initiating preclinical studies and clinical trials, and marketing authorizations must be obtained from the relevant regulatory authorities. Biopharmaceutical development is a long, expensive and uncertain process, and delay or failure can occur at any stage of any of our clinical trials. For example, in connection with the transfer of manufacturing for arimoclomol to a different facility, our CMO informed us that a component of arimoclomol may deflagrate during the drying process if not manufactured with specialized equipment. Our CMO will install and obtain approval for such equipment, which may result in a delay in approval by the EMA of arimoclomol in NPC.

The success in the development of arimoclomol and any future product candidates will depend on many factors, including:

- completing preclinical studies and receiving regulatory approvals or clearance for conducting clinical trials for our preclinical-stage programs;
- obtaining positive results in our clinical trials demonstrating efficacy, safety and durability of effect of arimoclomol and any future product candidates;
- receiving approvals for commercialization of arimoclomol and any future product candidates from regulatory authorities;
- manufacturing of arimoclomol and any future product candidates at an acceptable quality and cost; and

- maintaining and growing an organization of scientists, medical professionals and business people who can develop and commercialize our products and technology.

If required regulatory registrations or approvals are delayed, denied or withdrawn or if the regulatory authorities question the efficacy of arimoclomol as a treatment, it is likely to have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Because we are developing arimoclomol for the treatment of diseases in which there is little clinical experience, the FDA or other regulatory authorities may not consider the endpoints of our clinical trials to predict or provide clinically meaningful results.

There are currently either no or limited approved therapies in the orphan disease indications we are targeting and there may be no therapies approved to treat other diseases that we will target in the future. As a result, the design and conduct of clinical trials of arimoclomol or any future product candidate may take longer, be more costly or be less effective as a result of the novelty of development in these diseases. In some cases, we may use endpoints or methodologies that regulatory authorities may not consider to be clinically meaningful and that we may not continue to use in clinical trials or that we may determine after the initiation of the trial to no longer be an appropriate endpoint or methodology. Any such regulatory authority may require evaluation of additional or different clinical endpoints in our clinical trials or ultimately determine that these clinical endpoints do not support marketing approval. In addition, if we are required to use additional or different clinical endpoints by regulatory authorities, arimoclomol may not achieve or meet such clinical endpoints in our clinical trials. Even if a regulatory authority finds our clinical trial success criteria to be sufficiently validated and clinically meaningful, we may not achieve the pre-specified endpoint to a degree of statistical significance in any pivotal or other clinical trials we may conduct for our product candidate. Further, even if we do achieve the pre-specified criteria, our trials may produce results that are unpredictable or inconsistent with the results of other efficacy endpoints in the trial. Regulatory authorities also could give overriding weight to other efficacy endpoints over a primary endpoint even if we achieve statistically significant results on that primary endpoint, if we do not do so on our secondary efficacy endpoints. Regulatory authorities also weigh the benefits of a product against its risks and may view the efficacy results in the context of safety as not being supportive of approval.

Arimoclomol may be shown to cause undesirable side effects or other adverse events that could delay or prevent its regulatory approval, limit its commercial profile or result in significant negative consequences following regulatory approval, if such approval is granted.

We or regulatory authorities may suspend clinical trials at any time if it is believed that patients who participate in such clinical trials are being exposed to unacceptable health risks resulting in an unfavorable risk-benefit assessment or other adverse events. Undesirable side effects caused by arimoclomol could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive use permitted by such regulatory authorities or the delay or denial of approval by such regulatory authorities. In the event that the data from clinical trials suggest an unacceptable severity and prevalence of adverse side effects, such clinical trials could be suspended or terminated, and regulatory authorities could order us to cease further development of, or deny approval of, arimoclomol for any or all targeted indications. Treatment-related side effects could affect patient recruitment or the ability of enrolled patients to complete a clinical trial or result in potential product liability claims. In addition, if adverse effects occur during clinical testing or during our EAP or any other early access program or compassionate use program that we have established or may in the future establish, we may also have to conduct additional testing, which will cause delays in our development program and result in increased costs, or may ultimately lead to the abandonment of the development of arimoclomol for any specific indication or for all indications. For example, there was one death that was deemed possibly related to treatment by the investigator during the initial six month assessment period in our Phase 2 clinical trial for Gaucher disease and there were two additional deaths during the extension portion of this trial (where prior placebo patients were randomized to one of 3 arimoclomol doses), one of which was deemed probably related, and the other of which was deemed possibly related, to treatment by the investigator. In addition, there were two deaths that were deemed possibly related to treatment by the blinded investigator in our ongoing Phase 3 clinical trial in ALS. In addition, in our clinical trials of ALS and sIBM, we have observed increased transaminases in a

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minority of patients. Currently the association of increased transaminases to arimoclomol is undetermined but all cases are considered possibly related to arimoclomol until further data becomes available. If the increased transaminases are considered related to arimoclomol, it could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could lead to the delay or denial of approval by such regulatory authorities.

Even after receiving approval, the products may later exhibit adverse effects that could prevent their widespread use or necessitate their withdrawal from the market. If adverse events occur once the product is on the market, there is a risk that we may have to recall and destroy products, and ultimately there is a risk of fines, suspension or withdrawal of regulatory approvals and potential litigation.

Any of these events could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

If we are unable to obtain or maintain orphan drug designation or if we are unable to benefit from orphan drug exclusivity for arimoclomol, it will have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We are dependent on obtaining and maintaining orphan drug designations for NPC, ALS and sIBM. Further, we are dependent on the future grant of orphan drug exclusivity for arimoclomol for the treatment of NPC, ALS and sIBM after marketing approval, as such exclusivity is important in light of the fact that our general patent protection for the composition-of-matter of arimoclomol expired in 2020. The method of use patent protection for treatment of lysosomal diseases, including NPC and Gaucher disease, is anticipated to expire in 2029, with possible extensions to 2032 in the United States and 2034 in the European Union based on method of use patents, and we do not currently have patent protection for the treatment of sIBM. The method of use patent protection for ALS is anticipated to expire in 2024.

Even if we obtain orphan drug exclusivity for arimoclomol for NPC or other orphan designated indications, the exclusivity may not effectively protect the product from competition, because exclusivity can be broken under certain circumstances. In the United States, even after an orphan drug is approved, the FDA can subsequently approve an application for the same drug for the same orphan indication if the FDA concludes that such subsequent applicant's version of the drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In the European Union, orphan drug exclusivity will not prevent a marketing authorization being granted for a similar medicinal product in the same indication if the new product is safer, more effective or otherwise clinically superior to the first product or if the marketing authorization holder of the first product is unable to supply sufficient quantities of the product. If an orphan drug designation or other designations are revoked or if the market exclusivity granted in connection with the orphan drug designation period is suspended, shortened or revoked, it could have a material adverse impact on our business, results of operations, cash flows, financial condition and/or prospects. Additionally, obtaining orphan drug exclusivity for arimoclomol for NPC would not necessarily ensure that we would obtain orphan drug exclusivity for other indications and would therefore not preclude generic competition for other non-orphan approved uses of arimoclomol, such as sIBM, ALS or any other indications.

If we are not able to obtain or maintain orphan drug status for NPC, ALS and sIBM or for other diseases or disorders, or if we are unable to benefit from the associated marketing exclusivity, it could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Fast track and orphan drug designation by the FDA and EMA may not actually lead to a faster development or regulatory review or approval process, and does not assure FDA or EMA approval of arimoclomol.

If a product candidate is intended for the treatment of a serious or life threatening condition and the product candidate demonstrates the potential to address unmet medical need for this condition, the sponsor may apply for FDA or EMA fast track designation. In addition, orphan drug designation can be granted for product candidates intended to treat a rare disease or condition. However, neither a fast track designation nor an orphan drug designation ensures that the product candidate will receive marketing approval or that approval will be granted within any particular timeframe. As a result, while we received fast track designation for arimoclomol for

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NPC, ALS and sIBM as well as orphan drug designation for arimoclomol for NPC, ALS and sIBM from both the FDA and EMA, we may not experience a faster development process, review or approval compared to conventional FDA or EMA procedures. In addition, the FDA or EMA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. In addition, the FDA or EMA may withdraw orphan drug designation. Fast track and orphan drug designation alone does not guarantee qualification for the FDA's or EMA's priority review procedures.

A breakthrough therapy designation by the FDA for arimoclomol may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our product candidate will receive marketing approval.

A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs and biologics that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for accelerated approval.

The FDA designated arimoclomol as a breakthrough therapy for NPC and in the future it may designate it as such for other indications. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our current or future product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. The receipt of such designation for arimoclomol for a particular indication may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even though the FDA granted arimoclomol breakthrough therapy for NPC and even if it decides to grant such designation for another indication, the FDA may later decide that arimoclomol no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

We and our CROs have conducted and intend to conduct additional clinical trials at sites outside the United States, and the FDA may not accept data from trials conducted in such locations due to the study design and conduct, trial population or for other reasons, or may require additional U.S.-based trials.

We and our CROs have conducted, currently are conducting and intend in the future to conduct, clinical trials outside the United States, particularly in the European Union where we are headquartered. We also conducted a Phase 2 clinical trial for neurological Gaucher disease in India, with respect to which we announced top-line results in June 2020 and are currently conducting an open label extension of the same trial. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted by qualified investigators in accordance with current good manufacturing practices, or cGMP, including review and approval by an independent ethics committee and receipt of informed consent from trial patients. The trial population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. Generally, the patient population for any clinical trial conducted outside of the United States must be representative of the population for which we intend to seek approval in the United States. In addition, while these clinical trials are subject to applicable local laws, FDA acceptance of the data will be dependent upon its determination that the trials also comply with all applicable U.S. laws and regulations. There can be no assurance that the FDA will accept data from trials conducted outside of the United States. If the FDA does not accept the data from any clinical trials that we or our CROs conduct outside the United States, it would likely result in the need for additional clinical trials, which would be costly and time-consuming and delay or permanently halt our ability to develop and market arimoclomol for the proposed indications in the United States.

In addition, there are risks inherent in conducting clinical trials in multiple jurisdictions, inside and outside of the United States, such as:

- regulatory and administrative requirements of the jurisdiction where the trial is conducted that could burden or limit our and our CROs' ability to conduct clinical trials;
- foreign exchange fluctuations;
- manufacturing, customs, shipment and storage requirements;
- cultural differences in medical practice and clinical research; and
- the risk that the patient populations in such trials are not considered representative as compared to the patient population in the target markets where approval is being sought.

We have limited long-term data regarding the safety and effectiveness of arimoclomol and results in preclinical studies or clinical trials of our current and future product candidates may not be indicative of results in future clinical trials, and does not assure FDA or EMA approval of arimoclomol.

Results from preclinical studies are not necessarily predictive of future clinical trial results, and interim results of a clinical trial are not necessarily indicative of final results. While we have received some positive data in clinical trials of arimoclomol in ALS and sIBM, we are still conducting additional clinical trials in such indications and intend to conduct additional clinical trials in other indications in order to seek regulatory approvals. We do not know whether these clinical trials will establish sufficient efficacy and safety in order to receive regulatory approval.

Further, although we believe that we have demonstrated the safety, effectiveness and clinical advantages of arimoclomol in approximately 35 patients with NPC for two years, the long-term effects of arimoclomol in a large number of patients have not been studied and the existing data do not necessarily predict long-term clinical benefits or reveal long-term adverse effects. This failure to establish sufficient efficacy and safety could cause us to abandon clinical development of arimoclomol and any other current or future product candidates entirely or for specific indications.

Our molecules in preclinical development may also fail to show the desired safety and efficacy in clinical development despite positive results in preclinical studies.

We may never obtain approval with respect to arimoclomol for NPC or for any of the indications we intend to seek approval for, which would limit our ability to realize our full market potential.

If we obtain regulatory approval for arimoclomol for the treatment of NPC, we intend to follow with data to support use in other indications such as ALS, sIBM and neuropathic Gaucher disease. If we are successful, the indication for use of arimoclomol could potentially be broadened beyond the treatment of NPC to include such additional indications. However, there can be no assurance that, even if we obtain approval for one or more of these indications, we will obtain approval for any other or all of these additional indications, or for a broadened indication beyond the treatment of NPC. If we fail to obtain and maintain required approvals for these additional or broadened indications, or if regulatory approvals are delayed, we will not realize the full market potential of arimoclomol.

Obtaining and maintaining regulatory approval of arimoclomol in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of arimoclomol in other jurisdictions.

Obtaining and maintaining regulatory approval of arimoclomol in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, but a failure or delay in

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obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in other jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the United States, including additional preclinical studies or clinical trials as clinical studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

Obtaining non-U.S. regulatory approvals and compliance with non-U.S. regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of arimoclomol will be harmed.

All the above risks, individually or in the aggregate, could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

The fact that we have received rare pediatric disease designation for arimoclomol as a treatment for NPC is not an indication that we will receive a rare pediatric disease priority review voucher.

As further described under “Business,” the FDA has granted a rare pediatric disease designation to arimoclomol as a treatment for NPC, and we may seek rare pediatric disease designations for any future product candidates. Under the FDA’s rare pediatric disease priority review voucher program, upon the approval of a new drug application, or NDA, for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a rare pediatric disease priority review voucher that can be used to obtain priority review for a subsequent new drug application. However, receiving a rare pediatric disease designation for arimoclomol as a treatment for NPC does not automatically mean that we will receive a priority review voucher as a priority review voucher is only awarded following approval by the FDA of arimoclomol as a treatment for NPC.

If a priority review voucher is granted, we may use the voucher for our own FDA approval processes or decide to sell the voucher to other biotech or pharmaceutical companies. The market for priority review vouchers has a limited history and disclosed sales prices may not be indicative of the current value of vouchers, which may also fluctuate significantly. Congress has only authorized the Rare Pediatric Disease Priority Review Voucher program until September 30, 2020. However, if a drug candidate receives Rare Pediatric Disease Designation before October 1, 2020, it is eligible to receive a voucher if it is approved before October 1, 2022. Hence, it may be unavailable to us even if we meet all of the requirements. Further, the potential award of a voucher would trigger an obligation to market the relevant rare pediatric disease product within one year from FDA approval or the FDA may revoke the voucher. Finally, a voucher award subjects us to post-marketing reporting obligations to the FDA.

We may not be able to recruit enough patients for clinical trials to research new molecular entities or for agreements with investigators and hospitals and this may have a material adverse impact on our business.

The diseases for which arimoclomol is currently being developed are rare and, consequently, patient groups relevant for testing arimoclomol are limited in size and located across many jurisdictions. Therefore, even though we, through our CROs, cooperate closely with relevant physicians treating such patient groups, finding and recruiting the appropriate number of patients for the clinical trials, as well as patients with a profile appropriate for such clinical trials, may be challenging. Should clinical trials in indications similar to arimoclomol be initiated, it could negatively affect the possibility that we will be able to recruit patients. Failure to find and recruit the necessary number of appropriate patients to complete our clinical trials may have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

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

From time to time, we may publish interim, “top-line” or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or “top-line” data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Differences between preliminary or interim data and final data could significantly harm our business prospects and may cause the trading price of the ordinary shares and ADSs to fluctuate significantly, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We might not be able to identify, acquire, in-license and develop additional product candidates and, even if we are able to develop additional product candidates, such development might expose us to additional and new risks.

Efforts to identify, acquire or in-license, and then develop product candidates require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Our efforts may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development, approved products or commercial revenues for many reasons, including the following:

- the methodology used may not be successful in identifying potential product candidates;
- competitors may develop alternatives that render any product candidates we develop obsolete;
- any product candidates we develop may nevertheless be covered by third parties’ patents or other exclusive rights;
- a product candidate may be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by physicians, patients, the medical community or third-party payors.

We have limited financial and personnel resources and, as a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater market potential. Our resource allocation decisions may cause it to fail to capitalize on viable commercial drugs or profitable market opportunities. If we do not accurately evaluate the commercial potential or target market for a particular product, we may relinquish valuable rights to that product through collaboration, licensing or other royalty arrangements in circumstances under which it would have been more advantageous for us to retain sole development and commercialization rights to such product. If we are unsuccessful in identifying and developing additional product candidates or are unable to do so, our business, results of operations, cash flows, financial condition and/or prospects may be materially and adversely affected.

Risks Related to Commercialization of Our Product Candidates

Even if arimoclomol receives marketing approval, we may not be successful in our commercialization efforts and arimoclomol may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community necessary for commercial success.

Even if arimoclomol receives marketing approval, we may not be successful in our commercialization efforts and market acceptance by physicians, patients, third-party payors and others in the medical community may be less than estimated. Market acceptance will require us to build and maintain strong relationships with healthcare professionals involved in the treatment of orphan diseases, including nationally-recognized as well as community physicians, in addition to nurses and other allied health professionals. The number of healthcare professionals within orphan diseases and treatment centers that address NPC is limited. A failure to build or maintain these important relationships with these healthcare professionals and treatment centers could result in lower market acceptance. Our efforts to educate physicians, patients, third-party payors and others in the medical community on the benefits of arimoclomol may require significant resources and may never be successful. Such efforts may require more resources than are typically required due to the complexity and uniqueness of arimoclomol. The degree of market acceptance of, for instance, arimoclomol, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy of arimoclomol;
- the convenience and ease of administration as an oral capsule, sprinkled in food/beverage or via a feeding tube compared to alternative treatments and therapies;
- limitations or warnings or any restrictions on the use of arimoclomol together with other medications and the prevalence and severity of any side effects;
- the efficacy and potential advantages compared to alternative treatments and therapies;
- the cost-effectiveness of arimoclomol compared to alternative therapies and the ability to offer such drug for sale at competitive prices;
- changes in the standard of care for the targeted indications for our product candidate;
- the effectiveness of sales and marketing efforts and the strength of marketing and distribution support;
- availability and amount of coverage and reimbursement from government payors, managed care plans and other third-party payors;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies; and
- the timing of competitive product introductions and other actions by competitors in the marketplace.

The market opportunities for arimoclomol may be limited because we are targeting patients suffering from orphan diseases with relatively small populations and these populations may be smaller than expected.

Our estimates of the annual total addressable markets for arimoclomol under development is based on our beliefs and estimates regarding the incidence or prevalence of certain types of lysosomal and neuromuscular degenerative orphan diseases that may be addressable by arimoclomol, which is derived from a variety of

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sources, including scientific literature, surveys of clinics, patient foundations or market research. While we believe our assumptions and the data underlying our estimates are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors and therefore the accuracy of these estimates.

We base our development activities and commercial strategy on estimates of the number of patients who may benefit from and who may be medically eligible for a particular treatment. In addition to the number of patients, the ultimate pricing of arimoclomol, if approved, may be affected by the burden of disease, the extent of unmet need and clinical efficacy. Even if the number of medically eligible patients is correctly estimated, the number of patients who will ultimately receive a particular treatment may be greatly reduced if governmental authorities decide to change reimbursement policies. These estimates are subject to significant uncertainty and may prove to be inaccurate and we may not generate significant drug revenue and may not become profitable. Even if we obtain significant market share for arimoclomol, because the initial target populations for NPC, ALS and sIBM are relatively small, we may never achieve profitability without obtaining regulatory approval for additional and broader indications.

To date, we have not commercialized a drug and currently have a limited commercial infrastructure. We may not be successful in commercializing arimoclomol if it is approved unless, among other factors, we are able to identify patients, expand sales and marketing capabilities or enter into agreements with third parties to sell and market arimoclomol.

Even if arimoclomol receives marketing approval, whether commercialization will be successful and whether we will ultimately be profitable, will depend on factors such as our ability to successfully execute our business strategy and attract and build-up the internal resources necessary to effectively market our products.

To achieve commercial success for any approved drug, among other factors, we must either develop and expand our sales and marketing organization or outsource these functions to strategic collaborators and other third parties. We currently have limited in-house capabilities for sales, marketing and distribution but intend to expand such capabilities in order to market arimoclomol, if approved, directly through our own sales and marketing force in selected geographic areas, including the United States and Europe. In order to implement this strategy of commercializing in-house, we must expand our sales and marketing organization and establish distribution capabilities. This entails recruiting additional managerial, operational, financial and other employees, which is expensive and time-consuming and could delay product launches. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

In addition, to achieve commercial success for any approved drug we must be able to identify patients. The diseases for which we are currently developing our product candidate have a limited number of patients and for which, in many cases, there are limited diagnostics tools. The lack of diagnostic tools, coupled with the fact that there is frequently limited awareness among certain health care providers concerning the rare diseases we treat, often means that a proper diagnosis can, and frequently does, take years to identify (or an appropriate diagnosis may never be made for certain patients). As a result, we may not be able to grow our revenues if our product candidate is approved.

Factors that may inhibit our efforts to commercialize our drugs on our own after obtaining any regulatory approval to gain market acceptance include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or educate adequate numbers of physicians on the benefits of prescribing any future products;

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- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines;
- unforeseen costs and expenses associated with creating an independent sales and marketing organization;
- inability to maintain or develop additional relationships with medical centers or patient advocacy groups;
- inability to obtain sufficient coverage and reimbursement from third-party payors and governmental agencies; and
- inability to identify patients and improve diagnosis rates particularly in orphan populations in which no effective therapies exist.

We are not currently a party to a strategic collaboration that provides us with access to a collaborator's resources in selling or marketing drugs. If we enter into arrangements with third parties to perform sales and marketing services, our revenues from the sale of drugs or the profitability of these revenues to us are likely to be lower than if we were to market and sell any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market arimoclomol or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish further sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing arimoclomol.

If we are unable to achieve and maintain adequate levels of coverage or reimbursement for arimoclomol, if commercialized, or any future product candidates we may seek to commercialize, or if patients are left with significant out-of-pocket costs, our commercial success may be severely hindered.

Our product candidate, arimoclomol, may be significantly more expensive than traditional drug treatments and we expect that many patients will require governmental payors, such as Medicare and Medicaid in the United States or other country specific government organizations in foreign countries and/or private third-party payors to pay all or a portion of the cost of arimoclomol. Even if arimoclomol is approved for sale by the appropriate regulatory authorities, market acceptance and sales will depend on reimbursement policies and may be affected by future healthcare reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will reimburse and establish payment levels and, in some cases, utilization management strategies, such as tiered formularies and prior authorization. There is also a significant trend in the health care industry by public and private payors to contain or reduce their costs. As a result, payors may (i) decrease the portion of costs they will cover, (ii) cease providing adequate payment for arimoclomol or (iii) not cover arimoclomol at all. Any of the foregoing may have an adverse impact on our revenue and results of operations. We cannot be certain that reimbursement will be available for any products that we develop or that the reimbursement level will be adequate to allow us to operate profitably. Also, we cannot be certain that reimbursement policies will not reduce the demand for, or the price paid for, our products. If reimbursement is not available or is available on a limited basis, or if the reimbursement amount is inadequate, we may not be able to successfully commercialize any products, if approved.

We anticipate that we will derive substantially all of our revenue from the sale of our products to hospitals and specialized medical centers. Hospitals typically bill various third-party payors to cover all or a portion of the costs and fees associated with the treatments in which arimoclomol will be used and bill patients for any deductibles or co-payments.

The Centers for Medicare & Medicaid Services, or CMS, have established guidelines for the coverage and reimbursement of certain products and treatments by Medicare. In general, in order to be reimbursed by

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Medicare, a treatment furnished to a Medicare beneficiary must be reasonable and necessary for the diagnosis or treatment of an illness or injury, or to improve the functioning of a malformed body part. The methodology for determining coverage status and the amount of Medicare reimbursement varies based upon, among other factors, the setting in which a Medicare beneficiary received healthcare products and services. Any changes in federal legislation, regulations and policy affecting CMS coverage and reimbursement relative to the treatment using our products could have a material effect on our performance.

Physicians that perform treatments using our products, or the hospitals or specialized medical centers for which they work, may be subject to reimbursement claim denials upon submission of the claim. Physicians or hospitals may also be subject to recovery of overpayments if a payor makes payment for the claim and subsequently determines that the payor's coding, billing or coverage policies were not followed. Some physicians and hospitals may be unwilling to adopt our products in light of any additional associated cost. Further, any decline in the amount payors are willing to reimburse physicians and hospitals could make it difficult for existing physicians and hospitals to continue using or to adopt our products and could create additional pricing pressure for us. If we are forced to lower the price we charge for our products, our gross margins will decrease, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Outside of the United States, reimbursement levels vary significantly by country and by patient. Reimbursement is obtained from a variety of sources, including government sponsors, hospital budgets, or private health insurance plans, or combinations thereof. In the European Union, changes to pricing and reimbursement of medicinal products, are almost exclusively a matter for national, and not EU, law and policy, which have generally resulted in restrictions on the pricing and reimbursement of medicines due to healthcare budgetary constraints in most EU member states. Even if we succeed in bringing our products to market in additional foreign countries, uncertainties regarding future healthcare policy, legislation and regulation, as well as private market practices, could affect our ability to sell our products in commercially acceptable quantities at acceptable prices.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs and it is unlikely there will be a uniform policy of coverage and reimbursement for treatments using our products. Therefore, coverage and reimbursement for treatments using our products can differ significantly from payor to payor. Payors continually review new and existing technologies for possible coverage and can, without notice, deny or reverse coverage for new or existing products and treatments. There can be no assurance that third-party payor policies will provide coverage for treatments in which our products are used.

Further, we believe that future coverage and reimbursement may be subject to increased restrictions, such as additional prior authorization requirements, both in the United States and in international markets. Third-party coverage and reimbursement for treatments using arimoclomol, if approved, may not be available or adequate in either the United States or international markets, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We are operating in a field with substantial global competition and swift technological advances which could mean that our competitors may develop other treatments for similar or the same diseases as those targeted by arimoclomol and may be able to commercialize them more successfully.

The biopharmaceutical industry is subject to substantial global competition and swift technological advances. Certain companies are currently developing, or may initiate development of, competing product candidates targeting the same diseases as those targeted by us. For instance, we are aware of several pharmaceutical and biopharmaceutical companies that have successfully commercialized products or have commenced clinical trials of product candidates addressing indications that we target with arimoclomol.

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With respect to NPC, we consider our most direct competitor to be Zavesca (miglustat), which was originally developed by Actelion Pharmaceuticals and is now owned by Johnson & Johnson, which is also available as a generic product in several countries and is currently approved for the treatment of NPC. Miglustat has not been approved by the FDA for treatment of NPC, but it is approved for the treatment of Gaucher Type I disease in the United States. For the treatment of NPC, it is approved only in Europe, Canada, Australia, New Zealand, and several countries in Asia and South America as Zavesca and in Japan as Brazaves. We are also aware of several pharmaceutical and biopharmaceutical companies that have commenced clinical trials of product candidates for NPC, including: adrabetadex (VTS-270), being developed by Mallinckrodt for NPC; trappsol, being developed by Cyclo Therapeutics for NPC; IB1001, being developed by IntraBio for NPC; and ESB1609, being evaluated by E-scape Bio for NPC.

With respect to ALS, we consider our most direct competitors to be Sanofi and Mitsubishi Tanabe Pharma America, which have the pharmaceutical products Rilutek (riluzole) and Radivaca (edaravone). In addition to the current treatment options for ALS, a number of pharmaceutical product candidates are being developed to treat ALS, including: levosimendan (Orion Pharma); (ii) NurOwn (Brainstorm Therapeutic); and (iii) BIIB067/tofersen (Biogen); Masitinib (AB Science); and reldesemtiv (Cytokinetics).

There are currently no treatments for neurological symptoms of Gaucher disease. However, there are two types of treatment currently available for patients with Gaucher Type 1 disease: ERT, such as Cerezyme (Sanofi), Elelyso (Pfizer) and Vpriv (Shire); and SRT using Zavesca or Cerdelga (Sanofi). There are a few other advanced clinical programs for the treatment of Gaucher disease, including: Genzyme is currently evaluating the combined use of two agents for Gaucher disease Type 3; Tottori University Hospital and Shire are evaluating ambroxol hydrochloride for neuronopathic Gaucher disease; and AVROBIO Inc. is evaluating a product candidate for Gaucher disease Type 1.

We may also face heightened competition from gene therapy, alternative treatment forms and generics, after expiry of patent protection and loss of any market exclusivity for our products.

Any product candidates that we are able to commercialize in the United States and the EU may be subject to competition from lower priced imports of those same products, leading to reduced revenues and lower sales margins, as well as lower priced imports of competing products from countries with government price controls or other market dynamics that, in each case, reduce prices of products. The ability of patients and other customers to obtain these lower priced imports has grown significantly. Some of these foreign imports are illegal under current law. However, the volume of imports is now significant, due in part to the limited enforcement resources and the pressure in the current political environment to permit the imports as a mechanism for expanding access to lower priced medicines. Parallel importation or importation of foreign products could adversely affect our future profitability. This impact potentially could become even greater if there is a further change in relevant protective legislation or if state or local governments take further steps to import products from abroad.

Further, these competitors may have greater resources than us, develop more effective or affordable product candidates than us or develop their product candidates faster or more efficiently than us and thereby achieve commercialization of their products earlier or more effectively than us.

If we are unable to respond effectively to competition, arimoclomol may be rendered obsolete and our ability to generate revenue may be limited, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Product liability and other claims or litigation may have material adverse effects on our business.

Companies in the life sciences industry, such as us, are generally subject to risks related to product liability litigation and other claims or litigation.

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Product liability risks are inherent in developing, marketing and sale of pharmaceutical products. Even though we are not currently subject to any product liability claims, such claims could arise at a later date. Litigation would be time-consuming for our management and lead to significant costs and losses, which would adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

In addition, we may from time to time become involved in various litigation matters and governmental or regulatory investigations, prosecutions or similar matters arising out of our current or future business. We cannot accurately anticipate how the liabilities from any claims asserted against us, regardless of merit or eventual outcome, may harm our reputation. There is no guarantee that we will be successful in defending against future litigation or similar matters brought under various laws.

Even though we have obtained product liability insurance in respect of all clinical trials we have performed and are performing with respect to arimoclomol and for the EAP and any other early access program or compassionate use program that we have established or may in the future establish, there can be no assurance that such insurance coverage or any future insurance coverage for commercialization of arimoclomol will be available on reasonable commercial terms or that it will prove adequate. If sufficient insurance coverage is not obtained covering, for instance, product liability, or if such future litigation or investigation exceeds our insurance coverage, we could be subject to significant liabilities, which could have material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Our insurance policies protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Although we have product liability and clinical study liability insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, coverage may not be adequate to protect us against any future product liability claims. If we are unable to obtain insurance at an acceptable cost or on acceptable terms or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. We do not carry specific hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended. Additionally, we do not carry cyber security insurance, which may expose us to certain potential losses for damages or result in penalization with fines in an amount exceeding our resources.

We also expect that operating as a public company in the United States will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, on our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Risks Related to Our Dependence on Third Parties

Data provided by collaborators and others upon which we rely that has not been independently verified could turn out to be false, misleading or incomplete.

We rely on third-party vendors, such as CROs and other collaborators to provide us with significant data and other information related to our projects, preclinical studies or clinical trials and our business. If such third parties provide inaccurate, misleading or incomplete data, our business, results of operations, cash flows, financial condition and/or prospects could be materially adversely affected. In addition, our CROs in the past have been and will be subject to regular inspections by regulatory authorities. Any findings of deficiencies or noncompliance with applicable rules and regulations in such inspections may lead to delay or suspension of preclinical studies or clinical trials, implementation of additional internal controls and policies required by the authorities, refusal by the FDA or EMA to accept results of our preclinical studies or clinical trials as a result of compromised data integrity and control processes and termination of our agreement with such CROs. If our existing or future CROs are not in compliance with applicable rules and regulations in conducting our preclinical studies or clinical trials or otherwise fail to fulfil their contractual and regulatory obligations, this could adversely affect our business, results of operations, cash flows, financial condition and/or prospects. In addition, any delays in providing data or providing inaccurate, misleading or incomplete data would adversely affect our preclinical studies and human clinical trials, including timing for obtaining marketing approval, which could adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

We are currently dependent on third parties for manufacturing arimoclomol. If such third-party manufacturers do not deliver their manufactured products in time, this could have a material adverse effect on our business.

Manufacturing includes the production, formulation and stability testing of an active pharmaceutical ingredient and its formulation into pharmaceutical products, such as capsules or tablets. We do not have our own manufacturing facility and currently we do not intend to develop any such manufacturing capacity. We are therefore dependent on third parties for manufacturing our products and if any of those third parties terminates the agreements or moves their facilities to a different location, this could have a material adverse effect on our ability obtain such manufactured products. We currently depend on one manufacturer for arimoclomol and were our relationship with that manufacturer to deteriorate or the contract with such supplier be terminated then that could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. If we had to replace our manufacturer for arimoclomol, this could entail significant costs, delay, disruption of management attention and inventory shortage.

We may be required in the future to enter into agreements with other third parties to manufacture arimoclomol at a larger scale to increase supply for potential marketing and sale of its drug (if arimoclomol as a treatment for any of the indications targeted by us receives approval in any jurisdiction). We can provide no assurance that we will be able to make the transition from the current scale of production to a larger scale of production of arimoclomol or from laboratory-scale production to development-scale production of new molecules. We may need to enter into additional collaborative arrangements with other parties who have established manufacturing capabilities, or have other third parties manufacture our products on a contractual basis. We may not have access to the substantial financing on acceptable terms that would be required to scale-up production and develop effective commercial manufacturing processes and technologies. We may not be able to enter into collaborative or contracting arrangements on acceptable terms with parties that will meet our requirements for quality, quantity and timeliness.

Any manufacturing of pharmaceutical products is subject to a number of regulatory requirements, for instance quality control and documentation. We are dependent on our contract manufacturing partners appropriately handling arimoclomol in accordance with good manufacturing practices and the costs of compliance may be high. Manufacturing facilities must be approved by the authorities and will be subject to

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regular inspections by the authorities. Such inspections may lead to suspension of manufacturing and interfere with product supply and distribution. If our existing or future contract manufacturing partners do not manufacture arimoclomol properly and otherwise fulfil their contractual and regulatory obligations to deliver agreed quantities of arimoclomol in a timely manner and of sufficient quality, this could adversely affect our business, results of operations, cash flows, financial condition and/or prospects. In addition, any delays in production would delay our preclinical studies and human clinical trials, which could adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

We are dependent on third-party vendors to provide certain licenses, products and services and our business and operations, including clinical trials, could be disrupted by any problems with our significant third-party vendors.

We engage a number of third-party suppliers and service providers to supply critical goods and services, such as contract research services, contract manufacturing services and IT services. Disruptions to the business, financial stability or operations of these suppliers and service providers, including due to strikes, labor disputes or other disruptions to the workforce, for instance, if, as a result of COVID-19, employees are not able to come to work, or to their willingness and ability to produce or deliver such products or provide such services in a manner that satisfies the requirements put forth by the authorities, or in a manner that satisfies our own requirements, could affect our ability to develop and market arimoclomol on a timely basis. If these suppliers and service providers were unable or unwilling to continue to provide their products or services in the manner expected, or at all, we could encounter difficulty finding alternative suppliers. Even if we are able to secure appropriate alternative suppliers in a timely manner, costs for such products or services could increase significantly. Any of these events could adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

Specifically, we depend on agreements with external parties that carry out the clinical trials sponsored by us. If these external parties do not carry out their obligations under these agreements, or do not meet expected deadlines, if the parties need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised, ongoing and planned clinical trials may be extended, delayed or terminated which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

In the future we may seek to enter into collaborations with third parties for the development and commercialization of arimoclomol. If such collaborations are not successful, we may not be able to capitalize on the market potential of arimoclomol.

In the future we may enter into collaboration agreements with third-party collaborators, such as by introducing a license right or a distribution agreement, for development and commercialization of existing or other products to address market opportunities that require large development investments and/or special expertise in selected geographic areas, as well as to share the financial risks involved in drug development and commercialization of arimoclomol.

We have no significant experience in entering into major collaboration or license agreements. We may be unable to attract partners for collaboration agreements or the terms of those collaboration agreements that we choose to enter into may not be favorable to us. This may be a result of factors such as general market demand for particular products or products within specific therapeutic areas, results of clinical trials relating to the product candidates or market competition.

If we are not successful in efforts to enter into future partnership agreements, our business, results of operations, cash flows, financial condition and/or prospects may be negatively affected. Even if we are successful in entering into collaboration agreements, such agreements may not lead to development or commercialization of the products in the most efficient manner or at all.

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With any future collaboration agreements, we expect to have limited control over the amount and timing of resources that such collaborators dedicate to the development or commercialization of the products. The ability to generate revenue from these arrangements will depend on such collaborators' abilities to successfully perform the functions assigned to them in these arrangements. Our potential partners may have significant discretion in determining how to pursue planned activities and we may have limited control over the quality and nature of the efforts and resources that such a partner applies to the collaboration as well as the branding and marketing of us and our products. We cannot be certain that any collaborations will be scientifically or commercially successful or that we will receive revenues from any collaboration agreements.

Should any of the risks associated with the entering into collaborations with third parties for the development and commercialization of arimoclomol materialize, these could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Our employees, third-party contractors and other commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, consultants, and other commercial partners and business associates may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or other unauthorized activities that violate the regulations of the FDA, the EMA and non-U.S. regulators, including those laws requiring the reporting of true, complete and accurate information to such regulators, manufacturing standards, healthcare fraud and abuse laws and regulations in the United States and internationally or laws that require the true, complete and accurate reporting of financial information or data. In particular, 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. It is not always possible to identify and deter misconduct by our employees, third-party contractors and other commercial partners, 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 these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of operations, any of which could adversely affect our ability to operate our business and our results of operations. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees and reputational harm, and divert the attention of management in defending ourselves against any of these claims or investigations.

Risks Related to Legal and Regulatory Compliance Matters

Our business operations and current and future relationships with healthcare professionals, principal investigators, consultants, customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to substantial penalties.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers and third-party payors may expose us to broadly applicable healthcare laws, including, without limitation, the U.S. federal Anti-Kickback Statute and the U.S. federal False Claims Act, that may constrain the

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business or financial arrangements and relationships through which we sell, market and distribute any product candidates for which we obtain marketing approval. In addition, we may be subject to physician payment transparency laws and privacy and security regulation by the U.S. federal government and by the states and non-U.S. jurisdictions in which we conduct our business. The applicable federal, state and non-U.S. healthcare laws that may affect our ability to operate include the following:

- the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, 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 federal and state healthcare programs such as Medicare and Medicaid. The term “remuneration” has been broadly interpreted to include anything of value. This 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. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration that are alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an 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 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 its 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 federal Anti-Kickback Statute has been violated;
- U.S. federal civil and criminal false claims laws, including the federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions, and civil monetary penalty laws, which, among other things, impose criminal and civil penalties, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. Pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Further, pharmaceutical manufacturers can be held liable under the False Claims Act even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims. Criminal prosecution is also possible for making or presenting a false, fictitious or fraudulent claim to the federal government;
- Health Insurance Portability and Accountability Act of 1996, or HIPAA, which contains new federal criminal statutes that prohibit 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 whether the payor is public or private, 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 by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;

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- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose obligations on “covered entities,” including certain healthcare providers, health plans, and healthcare clearinghouses, as well as their respective “business associates” that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. Additionally, HITECH also contains four new tiers of civil monetary penalties; amends HIPAA to make civil and criminal penalties directly applicable to business associates and gave state attorneys general new authority to file civil actions for damages or injunctions in U.S. federal courts to enforce the federal HIPAA laws and to seek attorneys’ fees and costs associated with pursuing federal civil actions;
- the U.S. federal Food, Drug and Cosmetic Act, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;
- the EU General Data Protection Regulation, or GDPR, and other EU member state data protection legislation as well as that of the United Kingdom, which requires data controllers and processors, to adopt administrative, physical, and technical safeguards designed to protect personal data, including health-related data, including mandatory contractual terms with third-party providers, requirements for establishing an appropriate legal basis for processing personal data, transparency requirements related to communications with data subjects regarding the processing of their personal data, standards for obtaining consent from individuals to process their personal data, notification requirements to individuals about the processing of their personal data, an individual data rights regime, mandatory data breach notifications, limitations on the retention of personal data, increased requirements pertaining to health data, and strict rules and restrictions on the transfer of personal data outside of the EU, including to the United States;
- the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, and its implementing regulations, created annual reporting requirements for certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions), to report information related for certain payments and “transfers of value” provided to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding payments and transfers of value provided, as well as ownership and investment interests held, during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists and certified nurse-midwives; and
- analogous state laws and regulations and non-U.S. laws, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state and non-U.S. laws that require pharmaceutical companies to comply with the pharmaceutical industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or to adopt compliance programs as prescribed by state laws and regulations, or that otherwise restrict payments that may be made to healthcare providers; state and non-U.S. laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, marketing expenditures or drug pricing; state and local laws that require the registration of pharmaceutical sales representatives; and state and non-U.S. laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

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Further, the ACA, among other things, amended the intent requirement of the federal Anti-Kickback Statute and certain criminal statutes governing healthcare fraud. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. In addition, the ACA provided that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Because of the breadth of these laws and the narrowness of their exceptions and safe harbors, it is possible that our business activities can be subject to challenge under one or more of such laws. The full scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform. Federal and state enforcement bodies have continued to increase their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry.

Efforts to ensure that our internal operations and future business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, monetary fines, imprisonment, disgorgement of profits, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of noncompliance with the law and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and pursue our strategy. If any of the physicians or other healthcare providers or entities with whom we expect to do business, including future collaborators, are found not to be in compliance with applicable laws, they may be subject to significant criminal, civil or administrative sanctions, including exclusions from participation in government healthcare programs, which could also affect our business.

Nearly all aspects of our activities are subject to substantial regulation and compliance and staying up-to-date with such regulation is time-consuming and expensive.

Our business activities are subject to a wide range of laws as well as regulations, including those promulgated by the FDA and EMA, and other regulatory authorities, regulating matters such as orphan drug designations, clinical trials, use of data, animal testing, approval processes, requirements for production, marketing, sales, pricing, pharmacovigilance and intellectual property rights. Compliance with such laws is time-consuming and expensive. In addition, the FDA, the EMA or comparable regulatory authorities may change their policies, adopt additional regulations or revise existing regulations or take other actions, which may prevent or delay approval of arimoclomol. Changes to the prevailing legal or regulatory regime, may cause us to incur significant costs, revise, delay or discontinue all or part of our development program or adopt new processes and procedures in order to comply with new laws or regulations, which may negatively impact how we develop, attest, produce, market or sell our products, if approved, for instance, by making it more costly and demanding to develop or obtain approval for arimoclomol and this may materially and adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

Even if we obtain regulatory approval for arimoclomol, it will remain subject to ongoing regulatory oversight.

Even if we obtain regulatory approvals for arimoclomol, such approvals will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information. Any regulatory approvals that we receive for arimoclomol may also be subject to a risk evaluation and mitigation strategy limitations on the approved indicated uses for which the drug may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 trials, and surveillance to monitor the quality, safety and efficacy of the drug. Such regulatory requirements may differ from country to country depending on where we have received regulatory approval.

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In addition, drug manufacturers and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the NDA or non-U.S. marketing application. If we, or a regulatory authority, discover previously unknown problems with a drug, such as adverse events of unanticipated severity or frequency, or problems with the facility where the drug is manufactured or if a regulatory authority disagrees with the promotion, marketing or labeling of that drug, a regulatory authority may impose restrictions relative to that drug, the manufacturing facility or us, including requesting a recall or requiring withdrawal of the drug from the market or suspension of manufacturing.

If we fail to comply with applicable regulatory requirements following approval of arimoclomol, a regulatory authority may:

- issue an untitled letter or warning letter asserting that we are in violation of the law;
- seek an injunction or impose administrative, civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA, MAA, or comparable non-U.S. marketing application or any supplements thereto submitted by us or our partners;
- restrict the marketing or manufacturing of the drug;
- seize or detain the drug or otherwise require the withdrawal of the drug from the market;
- refuse to permit the import or export of arimoclomol; or
- refuse to allow us to enter into supply contracts, including government contracts.

Moreover, the FDA strictly regulates the promotional claims that may be made about drug products. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. 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 civil, criminal and administrative penalties. However, physicians may, in their independent medical judgment, prescribe legally available products for off-label uses. The FDA does not regulate the behavior of physicians in their choice of treatments but the FDA does restrict manufacturer's communications on the subject of off-label use of their products.

If we are unable to comply with applicable regulatory requirements, we may be subject to fines, withdrawal of regulatory approvals, recall of products, suspension of manufacturing or other operational restrictions, as well as criminal sanctions and damage claims. Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize arimoclomol and harm our business, results of operations, cash flows, financial condition and/or prospects.

We are subject to anti-corruption laws and anti-money laundering laws and regulations. Compliance with these legal standards could impair our ability to compete in domestic and international markets. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the

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USA PATRIOT Act, and any other domestic or foreign anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors, and other collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties to sell our products outside the United States, to conduct clinical trials, and/ or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

We, our employees and third-party contractors are subject to safety requirements and any failure to comply with such requirements could result in liability or reputational damage.

Due to the chemical ingredients of pharmaceutical products and the nature of the research and development and manufacturing process, we, our employees and third-party contractors are subject to safety reporting requirements, environmental regulations and, going forward, additional requirements following potential receipt of marketing approval. If we fail to comply with applicable rules and regulations, we could be subject to criminal sanctions and substantial liability or could be required to suspend or modify our operations. Further, if any of our employees or third-party contractors perform acts or omissions that are considered unethical, criminal or otherwise contrary to applicable laws and regulations or internal guidelines, our reputation may be harmed, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Compliance with environmental laws and regulations could be expensive, and the failure to comply with these laws and regulations could subject us to significant liability.

Our research, development and manufacturing operations involve the use of hazardous substances, and we are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the storage, use, handling, generation, manufacture, treatment, discharge and disposal of hazardous substances. Our products may also contain hazardous substances, and they are subject laws and regulations relating to labeling requirements and to their sale, collection, recycling, treatment, storage and disposal. Hazardous materials are also used by us in our research and development, such as Rotenone. We cannot completely eliminate the risk of accidental contamination or injury from the use, storage, handling or disposal of these materials. We may be held liable for any accident or injury that occurs as a result of this risk, the costs of which may exceed any insurance coverage that we currently have, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. Compliance with these laws and regulations may be expensive and noncompliance could result in substantial fines and penalties. Environmental laws and regulations also impose liability for the remediation of releases of hazardous substances into the environment and for personal injuries resulting from exposure to hazardous substances, and they can give rise to substantial remediation costs and to third-party claims, including for property damage and personal injury. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence, and they tend to become more stringent over time, imposing greater compliance costs and increased risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations, or releases of or exposure to hazardous substances, will not occur in the future or have not occurred in the past, including as a result of human error, accidents, equipment failure or other causes. The costs of complying with environmental laws and regulations, and liabilities that may be imposed for violating them, or for remediation obligations or responding to third-party claims, could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Although we believe that we hold all permits required for our use of hazardous materials, any failure to comply with applicable laws and regulations could result in fines, suspension of permits or authorizations or claims for damages, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We are subject to risks related to data privacy concerns, cyber security breaches and failure to comply with laws, regulations, standards, and contracts relating to data privacy and security.

We are subject to evolving data protection laws, privacy and security requirements and other regulatory restrictions in the various jurisdictions in which we operate. These laws are subject to differing interpretations and may be inconsistent among jurisdictions, and guidance on implementation and compliance practices are often updated or otherwise revised, which adds to the complexity of processing personal information. During the course of our business, we come in the possession of sensitive personal data, including information from clinical trials, and health data obtained in connection with reporting of adverse events and may store or process such information outside the country in which it was collected. This information needs to be handled by us in compliance with such obligations. These and other obligations could require us or our partners to incur additional costs to achieve compliance, limit our competitiveness, necessitate the acceptance of more onerous obligations in our contracts, restrict our ability to use, store, transfer, and process data, impact our or our partners' ability to process or use data in order to support the provision of our products or services, affect our or our partners' ability to offer our products and services or operate in certain locations, cause regulators to reject, limit, or disrupt our clinical trial activities, result in increased expenses, reduce overall demand for our products and services and make it more difficult to meet expectations of or commitments to customers or collaborators

Furthermore, our failure to keep apprised of, and comply with, privacy, data use and security laws, standards and regulations, including, for instance, unauthorized disclosure of, or access to, data, could result in the suspension or revocation of our approvals or registrations, the limitation, suspension or termination of services or the imposition of administrative, civil or criminal penalties, including fines. For example, under the EU General Data Protection Regulation that entered into force in May 25, 2018, fines may be as high as 20 million Euros or 4% of the annual worldwide revenue, whichever is higher, for certain infringements. Laws such as the GDPR and EU member state laws may also apply to health-related and other personal information that we process. These laws impose strict obligations on the ability to process health-related and other personal information of data subjects in the European Union and the United Kingdom, including, among other things, standards relating to the privacy and security of personal data, which require the adoption of administrative, physical and technical safeguards designed to protect such information. These laws may affect our use, collection, analysis, and transfer (including cross-border transfer) of such personal information. These laws include several requirements relating to transparency requirements related to communications with data subjects regarding the processing of their personal data, obtaining the consent of the individuals to whom the personal data relates, limitations on data processing, establishing a legal basis for processing, notification of data processing obligations or security incidents to appropriate data protection authorities or data subjects, the security and confidentiality of the personal data and various rights that data subjects may exercise. The GDPR prohibits the transfer, without an appropriate legal basis, of personal data to countries outside of the European Economic Area, or EEA, such as the United States, which are not considered by the European Commission to provide an adequate level of data protection. Switzerland has adopted similar restrictions. Although there are legal mechanisms to allow for the transfer of personal data from the EEA and Switzerland to the United States, uncertainty about compliance with EU data protection laws remains and such mechanisms may not be available or applicable with respect to the personal data processing activities necessary to research, develop, and market our products and services. For example, ongoing legal challenges in Europe to the mechanisms allowing companies to transfer personal data from the EEA to the United States could result in further limitations on the ability to transfer personal data across borders, particularly if governments are unable or unwilling to reach new or maintain existing agreements that support cross-border data transfers, such as the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks. Additionally, other countries have passed or are considering passing laws requiring local data residency and/or restricting the international transfer of data. Further, the UK's decision to leave the

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EU, often referred to as Brexit, has created uncertainty with regard to data protection regulation in the United Kingdom. In particular, while the Data Protection Act of 2018, that “implements” and complements the GDPR achieved Royal Assent on May 23, 2018 and is now effective in the United Kingdom, it is still unclear whether transfer of data from the EEA to the United Kingdom will remain lawful under GDPR. During the period of “transition” (i.e., until December 31, 2020), EU law will continue to apply in the United Kingdom, including the GDPR, after which the GDPR will be converted into UK law. Beginning in 2021, the UK will be a “third country” under the GDPR. We may, however, incur liabilities, expenses, costs, and other operational losses under GDPR and applicable EU Member States and the United Kingdom privacy laws in connection with any measures we take to comply with them.

Additionally, California recently enacted legislation that has been dubbed the first “GDPR-like” law in the United States. Known as the California Consumer Privacy Act, or CCPA, it creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA went into effect on January 1, 2020 and requires covered companies to provide new disclosures to California consumers, provides consumers with new data privacy rights, imposes new operational requirements for covered businesses, creates a statutory damages framework, and allows for a new cause of action for data breaches. Although there are limited exemptions for clinical trial data, the CCPA could impact our business activities depending on how it is interpreted and exemplifies the vulnerability of our business to not only cyber threats but also the evolving regulatory environment related to personal data and protected health information.

In addition, we may obtain health information from third parties in the United States (including research institutions from which we may obtain clinical trial data) that are subject to privacy and security requirements under HIPAA, as amended by HITECH. Additionally, HITECH created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in U.S. federal courts to enforce HIPAA and seek attorneys’ fees and costs associated with pursuing federal civil actions. Depending on the facts and circumstances, we could be subject to criminal penalties, including if we knowingly obtain, use, or disclose individually identifiable health information maintained by a HIPAA-covered entity or business associate in a manner that is not authorized or permitted by HIPAA. In addition, such failure or non-compliance may cause existing or potential partners, including hospitals, physicians and patients to cease interacting with us, and could damage our reputation and brand. In addition, to the extent more restrictive laws, rules or security requirements relating to business and personal data are adopted in the future in the various jurisdictions in which we operate, such changes could have an adverse impact on our business by increasing our costs or imposing restrictions on our business processes.

Any failure by our vendors to comply with applicable law, regulations or contractual obligations related to data privacy and security could result in proceedings against us by governmental entities or others.

We publish privacy policies, self-certifications, and other documentation regarding our collection, processing, use and disclosure of personal information and/or other confidential information. Although we endeavor to comply with our published policies, certifications, and documentation, we may at times fail to do so or may be perceived to have failed to do so. Moreover, despite our efforts, we may not be successful in achieving compliance if our employees or vendors to comply with our published policies, certifications, and documentation. Such failures can subject us to potential international, local, state and federal action if they are found to be deceptive, unfair, or misrepresentative of our actual practices. Moreover, patients or subjects about whom we or our partners obtain information, as well as the providers who share this information with us, may contractually limit our ability to use and disclose the information. Claims that we have violated individuals’ privacy rights or failed to comply with data protection laws or applicable privacy notices even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

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Because of the breadth of these laws, it is possible that some of our current or future business activities could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or reporting requirements in multiple jurisdictions could increase the possibility that a healthcare company may fail to comply fully with one or more of these requirements. If our operations are alleged to be or are found to be in violation of any of the privacy or data security laws or regulations described above that are applicable to us, or any other laws that apply to us, we may be subject to government investigations and enforcement actions, private litigation, penalties, including potentially significant criminal, civil, and administrative penalties, damages, fines, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements, and/or oversight if we become subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that arimoclomol, once approved, is sold in a foreign country, we may be subject to similar foreign laws. Accordingly, our failure to keep apprised of, and comply with, privacy, data use and security laws, standards and regulations could have a material adverse effect on our reputation and negatively affect our business, results of operations, cash flows, financial condition and/or prospects.

Cyber security attacks on our servers, information systems and databases, or the third-party servers, information systems and databases on which our information is stored or processed, could compromise the security, availability, or integrity of our data or could cause interruptions in the operations of our business. We cannot guarantee that our security measures will be sufficient to protect against unauthorized access to or other compromise of the personal or confidential information we process. The techniques used to sabotage or to obtain unauthorized access to our systems, networks and/or physical facilities in which data is stored or through which data is transmitted change frequently, and we may be unable to implement adequate preventative measures or stop security breaches. The recovery systems, security protocols, network protection mechanisms and other security measures that we have integrated into our platform, systems, networks and physical facilities, which are designed to protect against, detect and minimize security breaches, may not be adequate to prevent or detect service interruption, system failure or data loss. Notwithstanding safeguards, cyber security breaches, internal security breaches, physical security breaches or other unauthorized or accidental access to our servers, other information systems or databases could result in tampering with, or the theft or publication of, sensitive information or the deletion or modification of data, or could otherwise cause interruptions in our operations, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

The tampering with, disruption to, or the theft or publication of, sensitive information or the deletion or modification of records held either in our systems or the systems of others to which we have access, could subject us to increased costs and exposure to litigation. We have contractual and legal obligations to notify relevant stakeholders of security breaches. Most jurisdictions have enacted laws requiring companies to notify individuals, regulatory authorities, and others of security breaches involving certain types of data. In addition, our agreements with certain partners may require us to notify them in the event of a security breach. The loss of confidential information could result in the payment of damages and reputational harm and could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Despite the implementation of security measures, our internal computer systems and those of our third-party CMOs, CROs and other contractors and consultants are vulnerable to damage from computer viruses, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product candidate development programs. For example, the loss of pre-clinical studies or 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. To the extent that any such disruption results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidate, or inappropriate

disclosure or theft of confidential or proprietary information, we could incur liabilities, our competitive position could be harmed and the further development of our product candidates could be delayed.

The financial exposure from the items referenced above could either not be insured against or not fully covered through any insurance that we maintain and could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim. 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.

Risks Related to Intellectual Property Rights

If we are unable to obtain and maintain our marketing and distribution rights for arimoclomol, as well as patent protection for our technology and current or future product candidates, or if the scope of the marketing and distribution rights or patent protection obtained is not sufficiently broad, we may not be able to compete effectively in our markets.

We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our development programs and product candidate. Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our current and future product candidates. We have sought to protect our proprietary position by filing and in-licensing patent applications in the United States and abroad related to our development programs and product candidate. The patent prosecution process is expensive and time-consuming, and we or our licensors may not be able to file, maintain or prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions. We currently do not have composition of matter patents that cover our product candidate nor any patent that covers the formulation of our product candidate. We rely on method of use patents for protection of our product candidate, which protect methods of treating the current indications that we are targeting other than sIBM (the treatment of which is not currently covered by patent protection).

It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we have licensed from third parties. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our current and future product candidates in the United States or in other foreign countries. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, a patent issues from such applications, and then only to the extent the issued claims cover the technology.

If the patent applications we hold or have in-licensed with respect to our development programs and product candidate fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for our current and future product candidates, it could dissuade companies from collaborating with us to develop product candidates, and threaten our ability to commercialize, products. Any such outcome could have a negative effect on our business.

The patent position of biopharmaceutical companies is generally highly uncertain, involves complex legal, scientific and factual questions for which important legal principles remain unresolved and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights may be uncertain. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. For example, patent laws in various jurisdictions, including significant commercial markets such as Europe, restrict the patentability of methods of treatment of the human body more than U.S. law does. In addition, many countries, including certain countries in Europe, have

compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties (for example, the patent owner has failed to “work” the invention in that country, or the third party has patented improvements). In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patent and other intellectual property protection, which makes it difficult to stop infringement. Publications of discoveries in scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions remain confidential for a period of time after filing, and some remain so until issued. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found, and such prior art could potentially invalidate a one or more of our patents or prevent a patent from issuing from a one or more of our pending patent applications. There is also no assurance that there is not prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim in our patents and patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. Even if patents do successfully issue and even if such patents cover our current and future product candidates, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed, invalidated or held unenforceable, which could 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. Any successful opposition to these patents or any other patents owned by or licensed to us could deprive us of rights necessary for the successful commercialization of any product candidates that we may develop. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our current or future product candidates, prevent others from designing around our claims or provide us with a competitive advantage. Any of these outcomes could impair our ability to prevent competition from third parties.

We have filed several patent applications covering various aspects of our current or future product candidates. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patent, or whether any issued patents will be found invalid and unenforceable or will be challenged by third parties. Any successful opposition to these patents or any other patents owned by or licensed to us after patent issuance could deprive us of rights necessary for the successful commercialization of any product candidates that we may develop. Further, if we encounter delays in regulatory approvals, the period of time during which we could market a product candidate under patent protection could be reduced.

Our current intellectual property portfolio may not prove to be sufficient to protect the exclusivity of arimocloamol for our indications. Additional competitors could enter the market, including with generic versions of our products, and sales of affected products may decline materially.

We do not own any patents covering the composition of matter or the current formulation for arimocloamol. Composition of matter patents are generally believed to offer the strongest patent protection. It is therefore possible for any third party to make arimocloamol for another unpatented indication, and for such third party product to have the same formulation as ours. Such third party may also offer its version of arimocloamol at a lower cost.

Our patent portfolio has a strategic scope of protection consisting of method of use patents. While many countries such as the United States permit method of use patents relating to the use of drug products, in some countries the law relating to patentability of such use claims is evolving and may be unfavorably interpreted to prevent us from patenting some or all of our pending patent applications. There are some countries that currently do not allow such method of use patents, or that significantly limit the types of uses that are patentable.

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Since our composition of matter patent for arimoclomol has expired, a competitor could, at any time, submit an ANDA for a generic version of arimoclomol and request immediate approval. The ANDA process is confidential, so there may be other arimoclomol ANDAs pending. As a result, it is possible that we could face competition from third party products that have arimoclomol as the active pharmaceutical ingredient. If a third party were to obtain FDA approval in the United States for the use of arimoclomol, or regulatory approval in another jurisdiction, for an indication before we did, such third party would be first to market and could establish the price for arimoclomol in these jurisdictions. This could adversely impact our ability to implement our pricing strategy for the product and may limit our ability to maximize the commercial potential of arimoclomol in the United States and elsewhere. The presence of a lower priced competitive product with the same active pharmaceutical ingredients as our product could lead to use of the competitive product for our indications, including on an off-label basis. Such uses may be made by physicians or other third parties that are too small for us to pursue patent claims against. This could lead to pricing pressure for arimoclomol, which would adversely affect our ability to generate revenue from the sale of arimoclomol.

Our rights to develop and commercialize product candidates may be subject, in part, to the terms and conditions of licenses granted to us by others, and, if we fail to comply with our obligations under these arrangements, we could lose such intellectual property rights or owe damages to the licensor of such intellectual property.

We license know-how and technology related to our product candidate and certain other intellectual property rights from third parties, and in the future may be party to other material license or collaboration agreements. These agreements typically impose numerous obligations on a licensee, including payment obligations. If we fail to comply with our obligations under these agreements, our licensors may have the right to terminate our licenses, in which event we might not be able to develop, manufacture or market any product that is covered by the intellectual property we in-license from such licensors and may face other penalties. In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed or will license in the future prevent or impair our ability to maintain our current or future licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected technology and product candidates, which could have a material adverse effect on our business, financial conditions, results of operations and prospects. In addition to the above risks, intellectual property rights that we license in the future may include sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of our licensors may therefore affect our rights to use our sublicensed intellectual property, even if we are in compliance with all of the obligations under our license agreements. Should our licensors or any of the upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to us, or should such agreements be terminated or amended, our ability to develop and commercialize our product candidates may be materially harmed.

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 and market our current or future product candidates.

We cannot guarantee that any of our or our licensors' patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our current or future product candidates in any jurisdiction. Even if we diligently search third-party patents for potential infringement

by our products or current or future product candidates, we may not successfully find patents our products or current or future product candidates may infringe. For example, U.S. applications filed before November 29, 2000 and certain U.S. applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Because patent applications in the United States, Europe and many other jurisdictions 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, patent applications covering our current or future product candidates could have been filed by others without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our current or future product candidates or the use of such product candidates. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our current or future product candidates. We may incorrectly determine that our current or future product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our current or future product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our current or future product candidates.

If we fail to identify and correctly interpret relevant patents, we may be subject to infringement claims. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we fail in any such dispute, in addition to being forced to pay damages, we may be temporarily or permanently prohibited from commercializing any of our current or future product candidates that are held to be infringing and/or harm our reputation and financial results. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products, in the case of claims concerning registered trademarks, rename our current or future product candidates, or obtain one or more licenses from third parties, which may require substantial time and monetary expenditure, and which might be impossible or 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.

Patent terms may be inadequate to protect our competitive position on our current or future product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our current or future product candidates are obtained, once the patent life has expired for a product candidate, we may be open to competition from competitive medications, including biosimilar or generic medications. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing product candidates similar or identical to ours.

Depending upon the timing, duration and conditions of FDA marketing approval of our current or future product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments, and similar legislation in the EU. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the

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extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The U.S. Patent and Trademark Office, or USPTO, reviews and approves the application for any patent term extension in consultation with the FDA. 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 products sooner. As a result, our revenue from applicable products could be reduced. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case.

Intellectual property rights do not necessarily address all potential threats to our business.

While we seek broad coverage under our existing patent applications, there is always a risk that an alteration to products or processes may provide sufficient basis for a competitor to avoid infringing our patent claims. In addition, patents, if granted, expire and we cannot provide any assurance that any potentially issued patents will adequately protect our current or future product candidates. Once granted, patents may remain open to opposition, interference, re-examination, post-grant review, inter partes review, nullification or derivation action in court or before patent offices or similar proceedings for a given period after allowance or grant, during which time third parties can raise objections against such grant. In the course of such proceedings, which may continue for a protracted period of time, the patent owner may be compelled to limit the scope of the allowed or granted claims thus attacked, or may lose the allowed or granted claims altogether.

In addition, the degree of future protection afforded by our intellectual property rights is uncertain because even granted intellectual property rights have limitations and may not adequately protect our business. The following examples are illustrative:

- others may be able to make compounds, or formulations that are similar to our current or future product candidate formulations but that are not covered by the claims of the patents that we own or control;
- the patents of third parties may have an adverse effect on our business;
- we or our licensors or any future strategic partners might not have been the first to conceive or reduce to practice the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed;
- we or our licensors or any future strategic partners might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our owned or in-licensed pending patent applications will 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;
- 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 products for sale in our major commercial markets;

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- third parties performing manufacturing or testing for us using our current or future product candidates or technologies could use the intellectual property of others without obtaining a proper license;
- we cannot ensure that any of our patents, or any of our pending patent applications, if issued, or those of our licensors, will include claims having a scope sufficient to protect our current or future product candidates;
- we cannot ensure that any patents issued to us or our licensors will provide a basis for an exclusive market for our current or future commercially viable product candidates or will provide us with any competitive advantages;
- the Supreme Court of the United States, other U.S. federal courts, Congress, the USPTO or similar foreign authorities may change the standards of patentability and any such changes could narrow or invalidate, or change the scope of, our or our licensors' patents;
- patent terms may be inadequate to protect our competitive position on our current or future product candidates for an adequate amount of time;
- we cannot ensure that our commercial activities or current or future product candidates will not infringe upon the patents of others;
- we cannot ensure that we will be able to successfully commercialize our current or future product candidates on a substantial scale, if approved, before the relevant patents that we own or license expire;
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations, cash flows, financial condition and/or prospects.

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

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological complexity and legal complexity. Therefore, obtaining and enforcing biopharmaceutical patents is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. In addition, the America Invents Act, or the AIA, which was signed into law on September 16, 2011, includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation, and changed the U.S. patent system from a “first-to-invent” system to a “first-to-file” system.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a “first-to-file” system for deciding which party should be granted a patent when two or more patent

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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 had made the invention prior to such third party. While this will require us to be cognizant of the time that passes from creating an invention to filing a patent application on such invention, circumstances could prevent us from promptly filing patent applications on our inventions.

Among some of the other changes introduced by the AIA are changes that limit where a patentee may file a patent infringement suit and 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 procedures 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. The AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.

In the last few years, the USPTO has developed regulations and procedures to govern administration of the AIA, and many of the substantive changes to patent law associated with the AIA, and, in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, 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' or collaboration partners' patent applications and the enforcement or defense of our or our licensors' or collaboration partners' issued patents, all of which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our patents and pending patent applications. The U.S. Supreme Court has ruled on several patent cases in recent years, such as *Association for Molecular Pathology v. Myriad Genetics, Inc.*, *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, and *Alice Corporation Pty. Ltd. v. CLS Bank International*, which together have narrowed the scope of patent protection available in certain circumstances and weakened 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 the U.S. 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 has also increased in recent years. For example, the April 2010 amendment of the European Patent Convention, which limited the time permitted for filing divisional applications, was subsequently abrogated. This amendment and subsequent abrogation illustrates the uncertainty involved in the prosecution of European patent laws. In addition, the European patent system is relatively stringent in the type of amendments that are allowed during prosecution. These changes could limit our ability to obtain new patents in the future that may be important for our business.

Furthermore, the United States federal government retains certain rights in inventions produced with its financial assistance under the Bayh-Dole Act. The federal government retains a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit. The Bayh-Dole Act also provides federal agencies with "march-in rights". March-in rights allow the government, in specified circumstances, to require the contractor or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself. We cannot be sure that any co-developed intellectual property will be free from government rights

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pursuant to the Bayh-Dole Act. For instance, we have license agreements with the University of Miami and the University of Kansas pursuant to which we have in-licensed specified data, know-how, inventions and patent rights generated from clinical trials. As the University of Miami and University of Kansas have obtained federal grants, such license agreements may be subject to the Bayh-Dole Act. If, in the future, we co-own or license in technology which is critical to our business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, our ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a negative impact on the success of our business.

Our commercial success depends, in part, upon our ability, and the ability of any future collaborators, to develop, manufacture, market and sell our current and future product candidates, if approved, and use our proprietary technologies without alleged or actual infringement, misappropriation or other violation of the patents and intellectual property and proprietary rights of third parties. There have been many lawsuits and other proceedings involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and re-examination proceedings before the USPTO, and corresponding foreign patent offices. Numerous U.S. 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 do 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 biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our current or future product candidates may be subject to claims of infringement of the intellectual property rights of third parties.

We may in the future become party to, or be threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to arimoclomol and any future product candidates and technology, including interference or derivation proceedings, post grant review and inter partes review before the USPTO or similar adversarial proceedings or litigation in other jurisdictions. Similarly, we may initiate such proceedings or litigation against third parties, including to challenge the validity or scope of intellectual property rights controlled by third parties. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of their merit. There is a risk that 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 these third-party patents are valid, enforceable and infringed, which may result in such patents being narrowed, invalidated or held unenforceable, which could 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 right, 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 candidate unless we obtained a license or until such patent expires or is finally determined to be invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms, or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our current or future product candidates, and we have done so from time to time. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In such an event, we would be unable to further practice our technologies or develop and commercialize any of our current or future product candidates at issue, which could harm our business significantly.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our current and future product candidates and/or harm our reputation and financial results. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. Third parties making such claims may have the ability to dedicate substantially greater resources to these legal actions than we or our licensors or collaborators can. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products, in the case of claims concerning registered trademarks, rename our current or future product candidates, or obtain one or more licenses from third parties, which may be impossible, technically infeasible or require substantial time and monetary expenditure. Furthermore, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us, or include terms that impede or destroy our ability to compete successfully in the commercial marketplace.

We may become involved in lawsuits to protect or enforce our patents, the patents of our licensors or our other intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe or otherwise violate our or our licensors' patents or misappropriate or otherwise violate our or our licensor's other intellectual property rights. To counter infringement or unauthorized use, we may be required to file legal claims on a country-by-country basis, which can be expensive, time-consuming and divert the time and attention of our management and scientific personnel. Our adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we can. There can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded.

In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing and could limit our ability to assert those patents against those parties or other competitors and curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Similarly, if we assert trademark infringement claims, a court may determine that the trademarks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks, which could materially harm our business and negatively affect our position in the marketplace.

The initiation of a claim against a third party may also cause the third party to bring counter claims against us such as claims asserting that our patents are invalid or unenforceable or claims challenging the scope of the intellectual property rights we own or control. In patent litigation in the United States, 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, including lack of novelty, obviousness, non-enablement or lack of statutory subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant material information from the USPTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar validity claims before the USPTO in post-grant proceedings such as ex parte re-examinations, inter partes review, or post-grant review, or oppositions or similar proceedings outside the United States, in parallel with litigation or even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. We cannot be certain that there is no invalidating prior art of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of any future patent protection on our current or

future product candidates. Such a loss of patent protection could harm our business. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

We may not be able to prevent, alone or with our licensors, infringement or misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. Our business could be harmed if in litigation the prevailing party does not offer us a license on commercially reasonable terms. Any litigation or other proceedings to enforce our intellectual property rights may fail, and even if successful, may result in substantial costs and distract our management and other employees.

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. 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 the course of litigation. There could also be public announcements regarding the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of the ordinary shares and ADSs. Any of the foregoing could allow third parties to develop and commercialize competing technologies and products and have a material adverse impact on our business, financial condition, results of operations and/or prospects.

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

While we seek to protect the trademarks we use in the United States and in other countries, we may be unsuccessful in obtaining registrations and/or otherwise protecting these trademarks. If that were to happen, we may be prevented from using our names, brands and trademarks unless we enter into appropriate royalty, license or coexistence agreements, which may not be available or may not be available on commercially reasonable terms. Over the long term, if we are unable to establish name recognition based on our trademarks, trade names, service marks and domain names, then we may not be able to compete effectively, resulting in a material adverse effect on our business. Our registered or unregistered trademarks or trade names may be challenged, infringed, diluted or declared generic, or determined to be infringing on other third-party trademarks. In addition to registrations, we also rely on common law protection for our trademarks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trademarks and trade names similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks. Over the long term, if we are unable to establish name recognition based on our trademarks, then we may not be able to compete effectively and our business may be adversely affected. During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. Effective trademark protection may not be available or may not be sought in every country in which our products are made available. Any name we propose to use for our products in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of our proposed product names, we may be required to expend significant additional resources in an effort to identify a usable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. 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.

We may not have enough financial resources to successfully enforce and defend our intellectual property rights.

The enforcement and defense of our intellectual property rights, including patent rights, through legal or administrative proceedings may be costly and time-consuming, may divert our personnel from their usual responsibilities and may provide our competitors and others with insights into our proprietary rights. Moreover, there can be no assurance that we will have sufficient financial or other resources to conduct such enforcement or defense actions. An adverse determination in any litigation or other proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our pending patent applications at risk of not being issued. The occurrence of any of the above could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers. The majority of our employees and consultants were previously employed at universities or biopharmaceutical or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have, inadvertently or otherwise, used or disclosed intellectual property, trade secrets or other proprietary information of their former employers or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, we may have to pay substantial monetary damages and, lose valuable intellectual property rights or personnel, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. 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.

We will not seek to protect our intellectual property rights in all jurisdictions throughout the world and may not be able to adequately enforce our intellectual property rights even in the jurisdictions where protection is sought.

Filing, prosecuting and defending patents on the products in all countries and jurisdictions throughout the world would be prohibitively expensive, and the intellectual property rights in some countries could be less extensive than those in the European Union or the United States, assuming that rights are obtained in the European Union and the United States. Competitors may use our technologies in such jurisdictions to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the European Union or the United States.

In addition, the laws of some countries do not protect intellectual property rights to the same extent as in the European Union and the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biopharmaceuticals or biotechnologies. This could make it difficult to stop the infringement of our patents, if obtained, or the misappropriation of other intellectual property rights. For example, many countries have compulsory licensing laws under which a patent owner under certain conditions must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes.

Such lack of patent protection may lead to material costs for us, or we may be unable to protect or use our intellectual property rights, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

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

Although we are not currently experiencing any claims challenging the inventorship of our patents or ownership of our intellectual property, we may in the future be subject to claims that former employees, collaborators 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 current or future 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.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time-consuming and is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. 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. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution 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 greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon, misappropriating or successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Our inability to protect our confidential information and trade secrets would harm our business and competitive position.

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. 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 do not know whether the steps we have taken to protect our proprietary technologies will be effective. We 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. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts both within and outside the United States may be less willing or unwilling to protect trade secrets. 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.

Trade secrets and know-how can be difficult to protect as trade secrets and know-how will over time be disseminated within the industry through independent development, the publication of journal articles, and the movement of personnel skilled in the art from company to company or academic to industry scientific positions. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, 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. If we are unable to prevent material disclosure of the intellectual property related to our technologies to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. Even if we are able to adequately protect our trade secrets and proprietary information, our trade secrets could otherwise become known or could be independently discovered by our competitors. Competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, in the absence of patent protection, we would have no right to prevent them, or those to whom they communicate, from using that technology or information to compete with us.

We may not be able to prevent misappropriation of our intellectual property, trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States. 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. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments.

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 in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse 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 noncompliance can result in abandonment or lapse of the patent or patent application, resulting in 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, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our products, our competitors might be able to enter the market, which would harm our business.

We may not be successful in obtaining necessary intellectual property rights to future products through acquisitions and in-licenses.

Although we intend to develop products and technology through our own internal research, we may also seek to acquire or in-license technologies to grow our product offerings and technology portfolio. However, we may be unable to acquire or in-license intellectual property rights relating to, or necessary for, any such products or technology from third parties on commercially reasonable terms or at all. In that event, we may be unable to develop or commercialize such products or technology. We may also be unable to identify products or technology that we believe are an appropriate strategic fit for our company and protect intellectual property relating to, or necessary for, such products and technology.

The in-licensing and acquisition of third-party intellectual property rights for product candidates is a competitive area, and a number of more established companies are also pursuing strategies to in-license or acquire third-party intellectual property rights for products that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. Furthermore, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. If we are unable to successfully obtain rights to additional technologies or products, our business, financial condition, results of operations and/or prospects for growth could suffer.

In addition, if competition for the in-licensing or acquisition of third-party intellectual property rights for products and technologies that are attractive to us increases in the future, there may be fewer suitable opportunities for us as well as higher acquisition or licensing costs. We may be unable to in-license or acquire the third-party intellectual property rights for products or technology on terms that would allow us to make an appropriate return on our investment.

Risks Related to Employee Matters and Managing Our Growth

We may not be able to attract, integrate, manage and retain qualified personnel or key employees or our employees may not be able to come to work as a result of COVID-19.

The success of our business depends on our ability to successfully develop and commercialize arimoclomol. Since our organization currently consists of a limited number of employees with additional personnel hires planned for the years to come, our ability to successfully develop and commercialize arimoclomol will depend on recruiting a range of specialist personnel, particularly in the areas of development of new products, planning and managing clinical programs and commercialization of pharmaceutical products, and also requires that we retain and develop the necessary qualified personnel who can provide the needed expertise to support our business and operations. The market for qualified personnel is competitive and we may not succeed in recruiting personnel to, for instance, commercialize arimoclomol as currently envisaged, or we may fail to effectively replace current personnel who depart with qualified or effective successors. Our effort to retain and develop personnel may also result in significant additional expenses, which could adversely affect our profitability. We can make no assurances that key personnel, including our senior management such as our Chief Executive Officer, Chief Financial Officer, Chief Medical Officer, or Chief Scientific Officer, will continue to be employed or that we will be able to attract and retain qualified personnel in the future. Failure to retain or attract key personnel could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects. In addition, if, as a result of COVID-19, our employees are not able to come to work, then this could also have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our third-party collaborators, CROs, CMOs, suppliers, manufacturers and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures,

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water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics, protests, strikes, civil unrest, revolutions, rebellions, terrorist activities, and other natural or man-made disasters or business interruptions. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We currently rely on one third-party manufacturer to produce and process arimoclomol. Our ability to obtain clinical supplies of arimoclomol could be disrupted if the operations of this manufacturer are affected by a man-made or natural disaster or other business interruption. Damage or extended periods of interruption to our third-party collaborators' facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry or other events could cause us to cease or delay development of arimoclomol. Although we intend to maintain property damage and business interruption insurance coverage on these facilities, our insurance might not cover all losses under such circumstances and our business may be seriously harmed by such delays and interruption.

We are increasing and expect to continue increasing the size of our organization. If we are unable to effectively manage the anticipated growth, our business, results of operations, cash flows, financial condition and/or prospects will be negatively affected.

Any growth that we experience in the future will require us to expand our sales personnel, manufacturing operations and general and administrative infrastructure. As a dual listed public company, we will need additional managerial, operational, financial and other resources. In addition to the need to scale our organization, future growth will impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees. Rapid expansion of personnel could mean that less experienced people manufacture, market and sell arimoclomol if approved, which could result in inefficiencies and unanticipated costs, reduced quality and disruptions to our operations. In addition, rapid and significant growth may strain our administrative and operational infrastructure. Our ability to manage our business and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

If and when demand for arimoclomol or any of our future product candidates increases, we will need to continue to scale our capacity, expand customer service, billing and systems processes and enhance our internal quality assurance program. We cannot assure you that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available to facilitate the growth of our business. Failure to implement necessary procedures, transition to new processes or hire the necessary personnel could result in higher costs of processing data or inability to meet increased demand. If we encounter difficulty meeting market demand, quality standards or physician expectations, our reputation will be harmed and negatively affect our business, results of operations, cash flows, financial condition and/or prospects.

Our operations as a global company subject us to various risks, and our failure to manage these risks could adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

We face significant operational risks as a result of doing business globally, such as:

- fluctuations in currency exchange rates (in particular, U.S. dollars, Euros and Danish kroner);
- potentially adverse tax consequences, including the complexities of foreign value-added tax systems, tax inefficiencies related to our corporate structure, and restrictions on the repatriation of earnings;
- reduced or varied protection for intellectual property rights in some countries;
- export restrictions, trade regulations and foreign tax laws;

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- foreign certification and regulatory clearance or approval requirements;
- difficulties in developing effective marketing campaigns in unfamiliar foreign countries;
- customs clearance and shipping delays;
- political, social, and economic instability abroad, global health epidemics or other contagious diseases, terrorist attacks and security concerns in general;
- differing payment and reimbursement regimes;
- the burdens of complying with a wide variety of foreign laws and different legal standards; and
- increased financial accounting and reporting burdens and complexities.

If one or more of these risks are realized, it could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Global economic uncertainty and other global economic or political and regulatory developments could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Growth in the global pharmaceutical market has become increasingly tied to (i) global economic growth as an economic downturn may, for example as the result of COVID-19 paralyzing economic activities, reduce the amount of funding for the pharmaceutical sector as a whole or certain diseases targeted by us and (ii) political conditions, tension and uncertainty which could, for instance, impact the regulations applicable to us. The successful commercialization of arimoclomol will depend in part on the extent to which governmental authorities and health insurers are willing or able to establish coverage, and adequate reimbursement levels, as well as pricing policies.

Uncertain political and geopolitical conditions currently exist in various parts of the world, including barriers to free trade and free movement of people in the European Union following the United Kingdom's exit from the EU on January 31, 2020 and transition period that is set to end on December 31, 2020. The full effects of the United Kingdom's exit from the EU are impossible to predict but may result in significant market volatility and dislocation, and adversely affect the United Kingdom, European and global economy. In addition, as part of Brexit, the EMA has formally relocated to Amsterdam on March 30, 2019. This relocation might interrupt current administrative routines and occupy resources, which may cause delays in EMA's handling of our applications or otherwise adversely affect our dealings with the EMA. In addition, the United Kingdom will no longer be covered by the centralized procedures for obtaining EU-wide marketing authorization from the EMA and, unless a specific agreement is entered into, a separate process for authorization of medical products, including arimoclomol, will be required in the United Kingdom, the potential process for which is currently unclear. Brexit may, therefore, adversely affect and delay our ability to commercialize, market and sell arimoclomol in the United Kingdom. Brexit may also result in a reduction of funding to the EMA if the United Kingdom no longer makes financial contributions to European institutions, such as the EMA. If the United Kingdom funding is reduced, it could create delays in EMA issuing regulatory approvals for arimoclomol.

Future legal or regulatory changes in jurisdictions where we currently operate, or in such jurisdictions in which we may choose to operate in the future, could materially and adversely affect our business, results of operations, cash flows, financial condition and/or prospects, including by imposing regulatory and operational restrictions and compliance obligations on our business, reducing our revenue or increasing our expenses. For instance, changes in applicable laws in the following areas may have an impact on our operations: orphan drugs; clinical trials; use of data; animal testing; regulatory approval processes; requirements to production; marketing, sales and pricing of pharmaceutical products; pharmacovigilance and other regulatory requirements; and intellectual property rights.

In the United States, in particular, and in the other principal markets in which we may in the future sell arimoclomol, if approved, there is continued economic, regulatory and political pressure to promote changes in healthcare systems that would limit healthcare costs and expand access to healthcare. This uncertainty is further heightened in light of the impending 2020 presidential elections. Legislation that has been enacted in the United States, at both the federal and state levels, has introduced cost-reduction measures and other provisions that could decrease the coverage and compensation that we may receive for arimoclomol, if approved. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. In March 2010, the ACA was passed, which is a sweeping law intended to broaden access to health insurance, improve quality, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare (under the Physician Payments Sunshine Act) and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. In the years since enactment of the ACA, there have been, and continue to be, significant developments in, and continued executive, judicial and legislative activity around attempts to repeal or repeal and replace the ACA. On December 14, 2018, a Texas U.S. District Court Judge ruled that the ACA is unconstitutional in its entirety because the “individual mandate” was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. Additionally, on December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the District Court ruling that the individual mandate was unconstitutional and remanded the case back to the District Court to determine whether the remaining provisions of the ACA are invalid as well. On March 2, 2020, the United States Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. It is unclear how such litigation and other efforts to repeal and replace the ACA will impact the ACA and our business. Due to these efforts, there is significant uncertainty regarding the future of the ACA, and its impact on our business and operations.

Additionally, there has been heightened governmental scrutiny in the United States of pharmaceutical pricing practices in light of the rising cost of prescription drugs and biologics. Such scrutiny has resulted in several recent congressional inquiries and proposed and enacted federal and state legislation 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 products. At the federal level, the current presidential administration’s budget proposal for fiscal year 2021 includes a \$135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. On March 10, 2020, the current presidential administration sent “principles” for drug pricing to Congress, calling for legislation that would, among other things, cap Medicare Part D beneficiary out-of-pocket pharmacy expenses, provide an option to cap Medicare Part D beneficiary monthly out-of-pocket expenses, and place limits on pharmaceutical price increases. Further, the current presidential administration previously released a “Blueprint” to lower drug prices and reduce out of pocket costs of drugs that contained proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. The Department of Health and Human Services, or HHS, has solicited feedback on some of these measures and has implemented others under its existing authority. For example, in May 2019, CMS issued a final rule to allow Medicare Advantage plans the option to use step therapy for Part B drugs beginning January 1, 2020. This final rule codified CMS’s policy change that was effective January 1, 2019.

There have also been legislative changes in response to the COVID-19 pandemic. For example, the Coronavirus Aid, Relief and Economic Security Act, which was signed into law in March 2020 and is designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended the 2% Medicare payment reduction sequester from May 1, 2020 through December 31, 2020, and extended the sequester by one year, through 2030. It is possible that additional governmental action is taken in response to the COVID-19 pandemic. In addition, changes to the political landscape in the United States (including as a result of the 2020 presidential elections) may impact the market sentiment surrounding the pharmaceutical industry.

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In the EU, changes to healthcare systems, including the establishment and operation of health services and the pricing and reimbursement of medicinal products, are almost exclusively a matter for national, and not 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 products 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, and such measures are expected to continue, which could affect our ability to commercialize any product candidate for which we obtain marketing approval.

The above circumstances, individually or in the aggregate, could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Risks Related to the Global Offering and These Securities

Investors in the global offering will experience immediate and substantial dilution in the book value of their investment.

The initial offering price of the ordinary shares and ADSs in the global offering is substantially higher than the pro forma net tangible book value per ordinary share before giving effect to the global offering. Accordingly, if you invest in the ordinary shares or ADSs in the global offering, you will incur immediate substantial dilution of \$8.37 per ADS (based on the net tangible book value per share underlying the ADSs), based on an assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), and our pro forma net tangible book value as of June 30, 2020. In addition, following the global offering, investors in the global offering will have contributed approximately 29% of the total gross consideration paid by shareholders to purchase our ordinary shares and ADSs, but will only own ordinary shares (including ordinary shares in the form of ADSs) representing approximately 22% of our ordinary shares (including ordinary shares in the form of ADSs) outstanding after the global offering. Furthermore, if the underwriters exercise their option to purchase additional ordinary shares (including ordinary shares in the form of ADSs), or if the board authorizes the issue of additional shares, ADSs or warrants or convertible securities are issued and subsequently exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after the global offering, see “Dilution.”

There has been no prior market for the ADSs on a U.S. securities exchange and an active and liquid market for the securities may fail to develop, which could harm the market price of the ADSs.

Prior to the global offering, while our ordinary shares have been traded on Nasdaq Copenhagen since November 2017, there has been no public market on a U.S. securities exchange for the ADSs or our ordinary shares.

Although the ADSs have been approved for listing on the Nasdaq Global Select Market, an active trading market for the ADSs may never develop or be sustained following the global offering. The offering price of the ordinary shares and ADSs will be based on the market price for our ordinary shares on Nasdaq Copenhagen at the time of the global offering. The global offering price may not be indicative of the market price of the ordinary shares or ADSs after the global offering. In the absence of an active trading market for the ordinary shares or ADSs, investors may not be able to sell their ordinary shares or ADSs at or above the offering price or at the time that they would like to sell. In addition, although we expect the price of the ordinary shares and ADSs in the global offering to be based on the closing price of the underlying ordinary shares on Nasdaq Copenhagen at the time of the global offering, there is no guarantee that such price will be free from challenge by our existing shareholders based on allegations that it does not reflect the “market price” at which we are required by our articles of association and Danish law to issue our ordinary shares, if such ordinary shares are issued without pre-emptive rights for our existing shareholders or outside of applicable authorizations to the board of directors in our articles of association. Any such shareholder challenge could be time consuming and costly and, if decided in a manner unfavorable to us, could result in liability to us and our directors, and could prevent the global offering from closing.

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Following the global offering and after the ADSs begin trading on Nasdaq, our ordinary shares will continue to be admitted to trading on Nasdaq Copenhagen. We cannot predict the effect of this dual listing on the value of the ordinary shares and ADSs. However, the dual listing of the ordinary shares and ADSs may dilute the liquidity of these securities in one or both markets and may adversely affect the development of an active trading market for the ADSs.

The dual listing of our ordinary shares and the ADSs following the U.S. offering may adversely affect the liquidity and value of the ADSs.

Following the U.S. offering and after the ADSs begin trading on the Nasdaq Global Select Market, our ordinary shares will continue to be listed on Nasdaq Copenhagen. Trading of the ordinary shares or ADSs, as applicable, in these markets will take place in different currencies (U.S. dollars on the Nasdaq Global Select Market and DKK on Nasdaq Copenhagen), and at different times (resulting from different time zones, different trading days and different public holidays in the United States and Denmark). The trading prices of our ordinary shares or ADSs, as applicable, on these two markets may differ due to these and other factors. Any decrease in the price of our ordinary shares on Nasdaq Copenhagen could cause a decrease in the trading price of the ADSs on the Nasdaq Global Select Market. Investors could seek to sell or buy our ordinary shares or ADSs to take advantage of any price differences between the markets through a practice referred to as arbitrage. Any arbitrage activity could create unexpected volatility in both the trading prices on one exchange and the ordinary shares or ADSs available for trading on the other exchange. In addition, holders of ADSs will not be immediately able to surrender their ADSs and withdraw the underlying ordinary shares for trading on the other market without effecting necessary procedures with the depositary. This could result in time delays and additional cost for holders of ADSs. We cannot predict the effect of this dual listing on the value of the ordinary shares and the ADSs. However, the dual listing of the ordinary shares and the ADSs may reduce the liquidity of these securities in one or both markets and may adversely affect the development of an active trading market for the ADSs in the United States.

The trading price of our equity securities may be volatile due to factors beyond our control, and purchasers of the ordinary shares or ADSs could incur substantial losses.

The market prices of the ordinary shares or ADSs and shares may be volatile. The stock market in general and the market for biotechnology 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 ordinary shares or ADSs or shares at or above the price originally paid for the security. The market price for the ordinary shares or ADSs and shares may be influenced by many factors, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the release of new data from the clinical trials of arimoclomol;
- actual or anticipated changes in our growth rate relative to our competitors;
- competition from existing products or new products that may emerge;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- failure to meet or exceed financial estimates and projections of the investment community or that we provide to the public;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- currency fluctuations;

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- ordinary share price and volume fluctuations attributable to inconsistent trading volume levels of the ADSs;
- additions or departures of key management or scientific personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- changes to coverage policies or reimbursement levels by commercial third party payors and government payors and any announcements relating to coverage policies or reimbursement levels;
- announcement or expectation of additional debt or equity financing efforts;
- uncertainty caused by and the unprecedented nature of the current COVID-19 pandemic;
- issuances or sales of the ordinary shares or ADSs by us, our insiders or our other shareholders; and
- general economic and market conditions.

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

We have broad discretion over the use of the net proceeds from the global offering and may use them in ways with which you do not agree and in ways that may not enhance our operating results or the price of the ordinary shares or ADSs.

Our board of directors and management will have broad discretion over the application of the net proceeds that we receive from the global offering. We may spend or invest these proceeds in ways with which our shareholders and holders of ADSs disagree or that do not yield a favorable return, if at all. We intend to use the net proceeds from the global offering, together with our existing cash resources as described in “Use of Proceeds.” However, our use of these proceeds may differ substantially from our current plans. For instance, if we do not use the proceeds to obtain regulatory approval and fund a potential commercial launch of arimoclomol for the treatment of NPC, we will continue to not generate any revenue in the near future. Failure by our management to apply these funds effectively could harm our business, results of operations, cash flows, financial condition and/or prospects. Pending their use, we may invest the net proceeds from the global offering in a manner that does not produce income or that loses value.

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

The trading market for the ordinary shares and ADSs depends in part on the research and reports that securities or industry analysts publish about us or our business. If no or only limited securities or industry analysts cover our company, the trading price for the ordinary shares and ADSs could be negatively impacted. If one or more of the analysts who covers us downgrades our equity securities or publishes inaccurate or unfavorable research about our business, the price of ordinary shares and ADSs would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, or downgrades our securities, demand for ordinary shares and ADSs could decrease, which could cause the price of the ordinary shares and ADSs or their trading volume to decline.

We intend to retain all available funds and any future earnings and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of the ordinary shares or ADSs.

We have never declared or paid any cash dividends on our shares, and we intend to retain all available funds and any future earnings to fund the development and expansion of our business. Therefore, you are not

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likely to receive any dividends on your ordinary shares or ADSs for the foreseeable future and the success of an investment in ordinary shares or ADSs will depend upon any future appreciation in their value. Consequently, investors may need to sell all or part of their holdings of ordinary shares or ADSs after price appreciation, which may never occur, as the only way to realize any future gains on their investment. There is no guarantee that the ordinary shares or ADSs will appreciate in value or even maintain the price at which our investors have purchased them. Investors seeking cash dividends should not purchase the ordinary shares or ADSs.

In addition, if we choose to pay dividends in the future, exchange rate fluctuations may affect the amount of Danish kroner that we are able to distribute, and the amount in U.S. dollars that our shareholders receive upon the payment of cash dividends or other distributions we declare and pay in Danish kroner, if any. Any dividends will generally be subject to Danish withholding tax. See the section of this prospectus titled “Material Danish Income Tax Consequences” for a more detailed description of Danish taxes on dividends. These factors could harm the value of the ordinary shares or ADSs.

Investors should be aware that the rights provided to our shareholders and holders of ADSs under Danish corporate law and our articles of association differ in certain respects from the rights that you would typically enjoy as a shareholder of a U.S. company under applicable U.S. federal and state laws.

We are, and will upon the consummation of the global offering be, a Danish company with limited liability. Our corporate affairs are governed by our Articles of Association and by the laws governing companies incorporated in Denmark. The rights of shareholders and the responsibilities of members of our board of directors may be different from the rights and obligations of shareholders and boards of directors in companies governed by the laws of U.S. jurisdictions. In the performance of its duties, our board is required by Danish law to consider the interests of our company, its shareholders, its employees and other stakeholders. It is possible that some of these parties will have interests that are different from, or in addition to, the interests of our shareholders. See “Description of Share Capital and Articles of Association—Articles of Association and Danish Corporate Law.”

Under Danish corporate law, except in certain limited circumstances, which require at a minimum that a proposal for inspection has been supported by shareholders representing a minimum of 25% of the voting rights and the share capital being present at a general meeting, our shareholders may not ask for an inspection of our corporate records, while under Delaware corporate law any shareholder, irrespective of the size of such shareholder’s shareholdings, may do so. Shareholders of a Danish limited liability company are also unable to initiate a derivative action, a remedy typically available to shareholders of U.S. companies, in order to enforce a right of our company, in case we fail to enforce such right ourselves, other than in certain cases of board member/management liability under limited circumstances. In addition, a majority of our shareholders may release a member of our board of directors or our executive management from any claim of liability we may have, including if such board member or member of our executive management has acted in bad faith, negligently or fraudulently. However, a shareholder may bring a derivative action on behalf of our company against, among other persons, a member of our board of directors or our executive management, provided that the circumstances of the act or omission giving rise to the claim of liability was not known to the shareholder at the time of such shareholder resolution, or if shareholders representing at least 10% of the share capital represented at the relevant general meeting have opposed such shareholder resolution. In contrast, most U.S. federal and state laws prohibit a company or its shareholders from releasing a board member from liability altogether if such board member has acted in bad faith or has breached such board member’s duty of loyalty. Additionally, distribution of dividends from Danish companies to foreign companies and individuals can be subject to non-refundable withholding tax, and not all receiving countries allow for deduction. See “Material Danish Income Tax Consequences” for a more detailed description of the withholding tax. Also, the rights of a creditor of the company may not be as strong under Danish insolvency law as under U.S. or other insolvency law, and consequently creditors may recover less in the event our company is subject to insolvency compared to a similar case involving a U.S. debtor. In addition, the use of the tax asset consisting of the accumulated tax losses requires that we are able to generate positive taxable income, and the use of tax losses carried forward to offset against future income is subject to certain restrictions and can be restricted further by future amendments

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to Danish tax law. Finally, Danish corporate law may not provide appraisal rights in the case of a business combination equivalent to those generally afforded a shareholder of a U.S. company under applicable U.S. laws. For additional information on these and other aspects of Danish corporate law and our articles of association, see the section herein entitled “Description of Share Capital and Articles of Association.” As a result of these differences between Danish corporate law and our articles of association, on the one hand, and U.S. federal and state laws, on the other hand, in certain instances, you could receive less protection as an equity holder of our company than you would as a shareholder of a U.S. company.

You may not be able to exercise your right to vote the ordinary shares underlying your ADSs.

As a holder of the ADSs, you will not be treated as one of our shareholders and you will not have shareholder rights. The depositary will be the holder of the ordinary shares underlying your ADSs. As a holder of ADSs, you will have contractual ADS holder rights. The deposit agreement among us, the depositary and you, as an ADS holder, and all other persons directly and indirectly holding ADSs sets out ADS holder rights as well as the rights and obligations of the depositary.

ADS holders may only exercise voting rights with respect to the shares underlying their respective ADSs in accordance with the provisions of the deposit agreement, which provides that a holder may vote the ordinary shares underlying any ADSs for any particular matter to be voted on by our shareholders either by withdrawing the ordinary shares underlying the ADSs or by instructing the depositary how to vote those ordinary shares. However, even if you are able to instruct the depositary to vote the ordinary shares underlying your ADSs, we cannot guarantee you that the depositary will vote in accordance with your instructions and you may not know about the meeting far enough in advance to withdraw those ordinary shares.

Our articles of association permit differentiated voting, allowing the depositary to vote the ordinary shares registered in its name that underlie the ADSs in a manner that is not identical. As a result, the depositary will be able to vote such ordinary shares in a manner to reflect the preferences of the ADS holders, thereby effectively permitting pass-through voting by ADS holders who indicate their preference to the depositary in accordance with and subject to the depositary’s procedures. The depositary will try, as far as practical, to vote the ordinary shares underlying the ADSs as instructed by the ADS holders. In such an instance, if we ask for your instructions, the depositary, upon timely notice from us, will notify you of the upcoming vote and arrange to deliver our voting materials to you. We cannot guarantee that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your ordinary shares or to withdraw your ordinary shares so that you can vote them yourself. Voting instructions may be given only in respect of a number of ADSs representing an integral number of ordinary shares or other deposited securities. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that you may not be able to exercise any right to vote that you may have with respect to the underlying ordinary shares, and there may be nothing you can do if the ordinary shares underlying your ADSs are not voted as you requested. In addition, the depositary is only required to notify you of any particular vote if it receives notice from us in advance of the scheduled meeting.

ADS investors may also not realize all of the benefits of being a shareholder in our company. For instance, the votes of ADS holders will not be represented directly on our books, but only through a vote by the depositary of the underlying ordinary shares, which vote will reflect the ADS majority’s election on the vote of all such ordinary shares. Separately, we may elect to offer subscription rights to our shareholders without offering such rights to ADS holders as such subscription rights will be offered to the depositary as shareholder. The depositary has substantial discretion as to what will happen with any offered subscription rights and may determine that it is not legal or reasonably practicable to make such rights available to ADS holders, in which case the depositary will endeavor to sell such rights and distribute the proceeds to ADS holders, which it may not be able to do at the then-current market price or at all. If the depositary is unable to distribute or sell such rights, they will lapse, and ADS holders will receive no value. See “Description of American Depositary Shares—Dividends and Other Distributions.”

Holders of ADSs 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 it deems expedient in connection with the performance of its duties. 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 think it is 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 ADSs and withdraw the underlying shares. Temporary delays in the cancellation of ADSs and withdrawal of the underlying 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 we are paying a dividend on our ordinary shares. In addition, you may not be able to cancel ADSs and withdraw the underlying ordinary shares when you owe money for fees, taxes and similar charges and when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADSs or to the withdrawal of ordinary shares or other deposited securities. See "Description of American Depositary Shares."

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

Although we do not have any present plans to declare or pay any dividends, in the event we declare and pay any dividends, the depositary for the ADSs has agreed to pay to you the cash dividends or other distributions it or the custodian receives on our ordinary shares after deducting its fees and expenses. You will receive these distributions in proportion to the number of our 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 register under U.S. securities laws any offering of ADSs, ordinary shares or other securities received through such distributions. We also have no obligation to take any other action to permit distribution of ADSs, ordinary shares, rights or anything else to holders of the 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 an adverse effect on the value of your ADSs. See "Description of American Depositary Shares."

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

The deposit agreement governing the ADSs representing our ordinary shares 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 the ADSs, including claims under federal securities laws, against us or the depositary to the fullest extent permitted by applicable law. If this jury trial waiver provision is prohibited by applicable law, an action could nevertheless proceed under the terms of the deposit agreement with a jury trial. To our knowledge, the enforceability of a jury trial waiver under the federal securities laws has not been finally adjudicated by a federal court. However, we believe that a jury trial waiver provision is generally enforceable under the laws of the State of New York, which govern the deposit agreement, by a court of the State of New York or a federal court, which have non-exclusive jurisdiction over matters arising under the deposit agreement, applying such law. 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 the 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), none of which we believe are applicable in the case of the deposit agreement or the ADSs. No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any

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holder or beneficial owner of ADSs or by us or the depository of compliance with any provision of the federal securities laws. If you or any other holder or beneficial owner of ADSs brings a claim against us or the depository in connection with matters arising under the deposit agreement or the ADSs, you or such other 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 and / or the depository. If a lawsuit is brought against us and/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 cause 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.

Future sales, or the perception of future sales, of a substantial number of our ordinary shares or ADSs could adversely affect the price of the ordinary shares or ADSs, and actual sales of our equity will dilute shareholders and ADS holders.

Future sales of a substantial number of our ordinary shares or ADSs, or the perception that such sales will occur, could cause a decline in the market price of the ordinary shares or ADSs. Following the completion of the global offering, based on the number of shares outstanding as of June 30, 2020, we will have 34,661,075 ordinary shares (including ordinary shares in the form of ADSs) outstanding (assuming no exercise of the underwriters' option to purchase additional ordinary shares (including ordinary shares in the form of ADSs)). This includes the shares underlying the ADSs offered in the U.S. offering, which may be resold in the public market immediately without restriction, unless purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act, which may be resold only if registered under the Securities Act or in accordance with the requirements of Rule 144 or another applicable exemption from the registration requirements of the Securities Act. See "Ordinary Shares and ADSs Eligible for Future Sale—Rule 144." Shares held by our directors, officers and certain shareholders will be subject to the lock-up agreements described in the "Underwriting" section of this prospectus. If, after the period during which such lock-up agreements restrict sales of the ADSs and shares or if BofA Securities, Inc. and Cowen and Company, LLC waive the restrictions set forth therein (which may occur at any time), one or more of these shareholders sell substantial amounts of shares or ADSs in the public market, or the market perceives that such sales may occur, the market price of the ordinary shares or ADSs and our ability to raise capital through an issue of equity securities in the future could be adversely affected.

If we issue ordinary shares in future financings, shareholders may experience dilution and, as a result, our ordinary share price may decline.

We may from time to time issue additional ordinary shares at a discount from the trading price of our ordinary shares. As a result, our shareholders would experience immediate dilution upon the issuance of any of our ordinary shares at such discount. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, preference shares or shares. If we issue ordinary shares or securities convertible into ordinary shares of our share capital, our shareholders would experience additional dilution and, as a result, our ordinary share price may decline.

Holders of the ADSs will not be able to exercise the pre-emptive subscription rights related to the ordinary shares that they represent, and may suffer dilution of their equity holding in the event of future issuances of our ordinary shares.

Under the Danish Companies Act, or DCA, our shareholders benefit from a pre-emptive subscription right on the issuance of ordinary shares for cash consideration only and not in the event of issuance of shares against non-cash contribution or debt conversion. Shareholders' pre-emptive subscription rights, in the event of issuances of ordinary shares against cash payment, may be disappplied by a resolution of the shareholders at a general meeting of our shareholders and/or the ordinary shares may be issued on the basis of an authorization granted to the board of directors pursuant to which the board may disapply the shareholders' pre-emptive subscription rights. Our shareholders have authorized our board of directors to issue securities, including in connection with issues of new ordinary shares without pre-emptive rights for our existing shareholders at or

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above market price against cash payment, issues of new ordinary shares without pre-emptive rights to members of our board of directors, our executives and/or our employees and to certain specific third-parties which may be below the market price against cash payment or, for certain third-parties, by issuance of bonus shares as well as issues of new ordinary shares with pre-emptive rights for our existing shareholders against cash payment or conversion of debt which may be below the market price. Ordinary shares may be issued at or above the market price or below the market price, as such term is construed under Danish law, in the case of rights issues or pursuant to a resolution of the shareholders. The absence of pre-emptive rights for existing equity holders may cause dilution to such holders.

Furthermore, the ADS holders would not be entitled, even if such rights accrued to our shareholders in any given instance, to receive such pre-emptive subscription rights related to the ordinary shares that they represent. Rather, the depositary is required to endeavor to sell any such subscription rights that may accrue to the ordinary shares underlying the ADSs and to remit the net proceeds therefrom to the ADS holders pro rata. In addition, if the depositary is unable to sell rights, the depositary will allow the rights to lapse, in which case you will receive no value for these rights.

Claims of U.S. civil liabilities may not be enforceable against us.

We are incorporated under the laws of Denmark. Substantially all of our assets are located outside the United States. The majority of our board members and employees reside outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon such persons or to enforce against them or us in U.S. courts, including judgments predicated upon the civil liability provisions of the U.S. securities laws.

The United States and Denmark currently do not have a treaty providing for the reciprocal recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Consequently, a final judgment for payment given by a U.S. court, whether or not predicated solely upon U.S. securities laws, would not be enforceable in Denmark.

In order to obtain a judgment that is enforceable in Denmark, the party in whose favor a final and conclusive judgment of the U.S. court has been rendered will be required to file its claim again with a court of competent jurisdiction in Denmark. The Danish court will not be bound by the judgment by the U.S. court, but the judgment may be submitted as evidence. It is up to the Danish court to assess the judgment by the U.S. court and decide if and to what extent the judgment should be followed. Danish courts are likely to deny claims for punitive damages and may grant a reduced amount of damages compared to U.S. courts.

Based on the lack of a treaty as described above, U.S. investors may not be able to enforce against us or members of our board of directors or our executive management, or certain experts named herein who are residents of Denmark or countries other than the United States any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the U.S. federal securities laws.

We are an “emerging growth company” and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, the ordinary shares or ADSs may be less attractive to investors.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. As an emerging growth company, we are required to report only two years of financial

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results and selected financial data compared to three and five years, respectively, for comparable data reported by other public companies. We may take advantage of these exemptions until we are no longer an emerging growth company. We could be an emerging growth company for up to five years, although circumstances could cause us to lose that status earlier, including if the aggregate market value of our ordinary shares, including ordinary shares represented by ADSs, held by non-affiliates exceeds \$700 million as of the end of our second fiscal quarter before that time, in which case we would no longer be an emerging growth company as of the following December 31st (the last day of our fiscal year). We cannot predict if investors will find the ordinary shares or ADSs less attractive because we may rely on these exemptions. If some investors find the ordinary shares or ADSs less attractive as a result, there may be a less active trading market for the ordinary shares or ADSs and the price of the ordinary shares or ADSs may be more volatile.

As a foreign private issuer and as permitted by the listing requirements of Nasdaq, we will rely on certain home country corporate governance practices rather than the corporate governance requirements of Nasdaq.

We qualify as a foreign private issuer and the ADSs have been approved to be listed on Nasdaq. As a result, in accordance with the listing requirements of Nasdaq, we will rely on home country governance requirements and certain exemptions thereunder rather than relying on the corporate governance requirements of Nasdaq. For example, we are exempt from certain rules under the Exchange Act that regulate disclosure obligations and procedural requirements related to the solicitation of proxies, consents or authorizations applicable to a security registered under the Exchange Act, including the U.S. proxy rules under Section 14 of the Exchange Act. In addition, our officers and directors are exempt from the reporting and “short-swing” profit recovery provisions of Section 16 of the Exchange Act and related rules with respect to their purchases and sales of our securities. Moreover, while we currently publish annual and semi-annual reports on our website pursuant to the rules of Nasdaq Copenhagen and expect to file such financial reports with the SEC, we will not be required to file periodic reports with the SEC as frequently or as promptly as U.S. public companies. Specifically, we will not be required to file quarterly reports on Form 10-Q or current reports on Form 8-K that a domestic company would be required to file under the Exchange Act. Accordingly, there may be less publicly available information concerning our company than there would be if we were not a foreign private issuer.

In addition, the Listing Rules for the Nasdaq, or the Nasdaq Listing Rules, for domestic U.S. issuers require listed companies to have, among other things, a majority of their board members be independent, and to have independent director oversight of executive compensation, nomination of board members and corporate governance matters. We intend to follow home country practice in lieu of the above requirements where permitted. Danish law does not require that a majority of our board consist of independent directors or the implementation of a nominating and corporate governance committee, and our board may thus in the future not include, or include fewer, independent directors than would be required if we were subject to the Nasdaq Listing Rules, or our Board may decide that it is in our interest not to have a compensation committee or nominating and corporate governance committee, or have such committees governed by practices that would not comply with the Nasdaq Listing Rules. We intend to follow home country practice with regard to, among other things, quorum requirements generally applicable to general meetings of shareholders. Danish law does not have a regulatory regime for the solicitation of proxies and the solicitation of proxies is not a generally accepted business practice in Denmark, thus our practice will vary from the requirement of Nasdaq Listing Rule 5620(b). In addition, our shareholders have authorized our board of directors to issue securities, including in connection with the issues of new ordinary shares without pre-emptive rights for our existing shareholders at or above market price against cash payment, issues of new ordinary shares without pre-emptive rights to members of our board of directors, our executives and/or our employees and to certain specific third-parties which may be below the market price against cash payment or, for certain third-parties, by issuance of bonus shares as well as issues of new ordinary shares with pre-emptive rights for our existing shareholders against cash payment or conversion of debt which may be below the market price. To this extent, our practice varies from the requirements of Nasdaq Listing Rule 5635, which generally requires an issuer to obtain shareholder approval for the issuance of securities in connection with such events. For an overview of our corporate governance principles, see “Description of Share

Capital and Articles of Association.” Accordingly, you may not have the same protections afforded to shareholders of companies that are subject to these Nasdaq Listing Rule requirements.

We may lose our foreign private issuer status in the future, which could result in significant additional costs and expenses.

As a foreign private issuer, we are not required to comply with all the periodic disclosure and current reporting requirements of the Exchange Act and related rules and regulations. Following the consummation of the global offering, the determination of foreign private issuer status will be made annually on the last business day of our most recently completed second fiscal quarter. Accordingly, we will next make a determination with respect to our foreign private issuer status on June 30, 2021. There is a risk that we will lose our foreign private issuer status in the future.

We would lose our foreign private issuer status if, for instance more than 50% of our ordinary shares (including ordinary shares represented by ADSs) are owned by U.S. residents or persons and more than 50% of our assets are located in the United States and we continue to fail to meet additional requirements necessary to maintain our foreign private issuer status. The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly greater than the costs we incur as a foreign private issuer. If we are not a foreign private issuer, we will be required to file periodic reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive in certain respects than the forms available to a foreign private issuer. We would be required under current SEC rules to prepare our financial statements in accordance with U.S. GAAP and modify certain of our policies to comply with corporate governance practices associated with U.S. domestic issuers. Such conversion and modifications would involve additional costs. In addition, we may lose our ability to rely upon exemptions from certain corporate governance requirements on U.S. stock exchanges that are available to foreign private issuers, which could also increase our costs.

U.S. Holders may suffer adverse tax consequences if we are characterized as a passive foreign investment company, or PFIC.

Based on our current estimates (and not final audited financials) of the composition of our income and valuation of our assets, including goodwill, we do not believe we were a PFIC for our taxable year ending June 30, 2020. There can be no assurance that the United States Internal Revenue Service, or IRS, will agree with our conclusion and that the IRS would not successfully challenge our position. The determination of whether we are a PFIC is a fact-intensive determination made on an annual basis and the applicable law is subject to varying interpretation. Furthermore, because there are uncertainties in the application of the relevant rules, it is possible that the IRS may challenge our classification of certain income and assets as non-passive or our valuation of our tangible and intangible assets, each of which may result in us being treated as a PFIC for our taxable year ending June 30, 2020 or us becoming a PFIC for the current taxable year or any future taxable years. Our PFIC status may change from year to year and we have not yet made any determination as to our expected PFIC status for the current year and our status may depend, in part, on how quickly we utilize the cash proceeds from the global offering and concurrent private placement. Accordingly, there can be no assurance that we will not be considered a PFIC in the current year or for any future taxable year. Our U.S. counsel expresses no opinion with respect to our PFIC status for our taxable year ending June 30, 2020, and the current or any future taxable year. Under the U.S. Internal Revenue Code of 1986, as amended, or Code, we will be a PFIC for any taxable year in which either (i) 75% or more of our gross income consists of “passive income,” or (ii) 50% or more of the average quarterly value of our assets, including cash, consists of assets that produce, or are held for the production of, “passive income.” Passive income generally includes interest, dividends, rents, certain non-active royalties and capital gains. Whether we will be a PFIC in any year depends on the composition of our income and assets, and the relative fair market value of our assets from time to time, which we expect may vary substantially over time. In addition, 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 and received directly its proportionate share of the income of such other corporation.

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If we are a PFIC for any taxable year during which a U.S. Holder (as defined below under “Material U.S. Federal Income Tax Considerations”) holds ordinary shares or ADSs, we will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns the ordinary shares or ADSs regardless of whether we continue to meet the PFIC test described above, unless the U.S. Holder makes a specified election once we cease to be a PFIC. If we are classified as a PFIC for any taxable year during which a U.S. Holder holds ordinary shares or ADSs, the U.S. Holder may be subject to adverse tax consequences regardless of whether we continue to qualify as a PFIC, including ineligibility for any preferred tax rates on capital gains or on actual or deemed dividends, interest charges on certain taxes treated as deferred, and additional reporting requirements.

A U.S. Holder may in certain circumstances mitigate the adverse tax consequences of the PFIC rules by filing an election to treat the PFIC as a QEF, or, if shares of the PFIC are “marketable stock” for purposes of the PFIC rules, by making a mark-to-market election with respect to the shares of the PFIC. However, in the event that we are or become a PFIC, we do not intend to comply with the reporting requirements necessary to permit U.S. Holders to elect to treat us as a QEF. Furthermore, if a U.S. Holder were to make a mark-to-market election with respect to its ordinary shares or ADSs, the U.S. Holder would be required to include annually in its U.S. federal taxable income (taxable at ordinary income rates) an amount reflecting any year end increase in the value of its ordinary shares or ADSs. For further discussion of the PFIC rules and the adverse U.S. federal income tax consequences in the event we are classified as a PFIC, see the section titled “Material U.S. Federal Income Tax Considerations.” The U.S. federal income tax rules relating to PFICs are very complex. Prospective U.S. Holders are strongly urged to consult their own tax advisors with respect to the impact of PFIC status on the purchase, ownership and disposition of ordinary shares or ADSs, the consequences to them of an investment in a PFIC, any elections available with respect to the ordinary shares or ADSs and the IRS information reporting obligations with respect to the purchase, ownership and disposition of ordinary shares or ADSs of a PFIC.

If a U.S. Holder is treated as owning at least 10% of our ordinary shares or ADSs, such holder may be subject to adverse U.S. federal income tax consequences.

If a U.S. Holder is treated as owning, directly, indirectly or constructively, at least 10% of the value or voting power of our ordinary shares or ADSs, such U.S. Holder may be treated as a “United States shareholder” with respect to each “controlled foreign corporation” in our group, if any. Because our group currently includes at least one U.S. subsidiary, under current law, any of our current non-U.S. subsidiaries and any future newly formed or acquired non-U.S. subsidiaries will be treated as controlled foreign corporations, regardless of whether we are treated as a controlled foreign corporation. A United States shareholder of a controlled foreign corporation may be required to annually report and include in its U.S. taxable income its pro rata share of “Subpart F income,” “global intangible low-taxed income” and investments in U.S. property by controlled foreign corporations, regardless of whether we make any distributions. An individual that is a United States shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a United States shareholder that is a U.S. corporation. Failure to comply with controlled foreign corporation reporting obligations may subject a United States shareholder to significant monetary penalties. We cannot provide any assurances that we will furnish to any United States shareholder information that may be necessary to comply with the reporting and tax paying obligations applicable under the controlled foreign corporation rules of the Code. U.S. Holders should consult their tax advisors regarding the potential application of these rules to their investment in ordinary shares or ADSs.

The intended tax effects of our corporate structure depend on the application of the tax laws of various jurisdictions and on how we operate our business.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. For example, our effective tax rates could be adversely affected by changes in foreign currency exchange rates or by changes in the relevant tax, accounting and other laws,

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regulations, principles and interpretations. As we intend to operate in numerous countries and tax jurisdictions, the application of tax laws can be subject to diverging and sometimes conflicting interpretations by tax authorities of these jurisdictions. It is not uncommon for tax authorities in different countries to have conflicting views, for instance, with respect to, among other things, the manner in which the arm's length standard is applied for transfer pricing purposes, or with respect to the valuation of intellectual property. In addition, it is uncertain whether we will be able to fully utilize our net operating losses as an income tax benefit for future periods. To the extent that our ability to use our net operating losses is restricted, this may result in us paying more tax and could therefore reduce our post-tax profits. In addition, tax laws are subject to change as new laws are passed and new interpretations of the law are promulgated by taxing authorities or sustained by judicial bodies. We are unable to predict what tax law changes may be proposed or enacted in the future or what effect such changes would have on our business, but such changes, to the extent they are brought into tax legislation, regulations, policies or practices, could affect our financial position and increase the complexity, burden and cost of tax compliance.

We are exposed to changes in foreign currency exchange rates and interest rates.

Substantially all of our income is expected to be in U.S. dollars and Euros, while part of our operating costs are currently denominated in Danish kroner, although in the future such Danish kroner denominated operating costs are likely to constitute a smaller percentage of our total operating costs. We do not currently have in place hedging contracts to cover our currency risks and, accordingly, fluctuations in Danish kroner against, in particular U.S. dollars, could have an adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

Our interest rate risk mainly derives from the fact that we hold a large cash position. Significant negative changes in interest rates could affect the value of our funds and any placement thereof and may thereby adversely affect our business, results of operations, cash flows, financial condition and/or prospects.

Shareholders outside Denmark may be subject to exchange rate risk.

The ordinary shares underlying the ADSs are denominated in Danish kroner. Accordingly, an investment in the ordinary shares or ADSs by an investor whose principal currency is not Danish kroner may expose such investor to foreign currency exchange rate risk. Any depreciation of Danish kroner against such foreign currency would reduce the value of the investment in the ordinary shares or ADSs, as applicable, in terms of such foreign currency.

We will incur significant increased costs as a result of operating as a company that is publicly listed on both Nasdaq in the United States and Nasdaq Copenhagen in Denmark, and our management will be required to devote substantial time to new compliance initiatives.

As a U.S. public company listed on Nasdaq, we will incur legal, accounting, and other expenses that we did not previously incur. We will be subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Nasdaq listing requirements and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time consuming or costly and increase demand on our systems and resources, particularly after we are no longer an "emerging growth company" and/or a foreign private issuer. The Exchange Act would require that, as a public company, we file annual, semi-annual and current reports with respect to our business, financial condition and result of operations. However, as a foreign private issuer, we are not required to file quarterly and current reports with respect to our business and results. We currently make annual and semiannual reporting with respect to our listing on Nasdaq Copenhagen.

Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations

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may make it more difficult and more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified senior management personnel or members for our board of directors.

However, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Further, being a U.S. listed company and a Danish public company with ordinary shares admitted to trading on Nasdaq Copenhagen impacts the disclosure of information and requires compliance with two sets of applicable rules. From time to time, this may result in uncertainty regarding compliance matters and result in higher costs necessitated by legal analysis of dual legal regimes, ongoing revisions to disclosure and adherence to heightened governance practices. As a result of the enhanced disclosure requirements of the U.S. securities laws, business and financial information that we report is broadly disseminated and highly visible to investors, which we believe may increase the likelihood of threatened or actual litigation, including by competitors and other third parties, which could, even if unsuccessful, divert financial resources and the attention of our management from our operations.

As a result of becoming a U.S. public company, we will become subject to additional regulatory compliance requirements, including Section 404, and if we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud.

Pursuant to Section 404, our management will be required to assess and attest to the effectiveness of our internal control over financial reporting in connection with issuing our consolidated financial statements as of and for the year ending December 31, 2021. Section 404 also requires an attestation report on the effectiveness of internal control over financial reporting be provided by our independent registered public accounting firm beginning with our annual report following the date on which we are no longer an “emerging growth company”, which may be up to five fiscal years from the initial public offering of our ADSs.

The cost of complying with Section 404 will significantly increase and management’s attention may be diverted from other business concerns, which could adversely affect our results. We may need to hire more employees in the future or engage outside consultants to comply with these requirements, which will further increase expenses. If we fail to comply with the requirements of Section 404 in the required timeframe, we may be subject to sanctions or investigations by regulatory authorities, including the SEC and Nasdaq. Furthermore, if we are unable to attest to the effectiveness of our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, and the market price of our ordinary shares and ADSs could decline. Failure to implement or maintain effective internal control over financial reporting could also restrict our future access to the capital markets and subject each of us, our directors and our officers to both significant monetary and criminal liability. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expense and a diversion of management’s time and attention from revenue generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business, financial position, results and prospects may be adversely affected.

We may be subject to securities litigation, which is expensive and could divert management's attention.

The market price of the ordinary shares or ADSs may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

We are a Danish company with limited liability. The rights of our shareholders may be different from the rights of shareholders in companies governed by the laws of U.S. jurisdictions.

We are, and will upon the consummation of the global offering be, a Danish company with limited liability. Our corporate affairs are governed by our Articles of Association and by the laws governing companies incorporated in Denmark. The rights of shareholders and the responsibilities of members of our board of directors may be different from the rights and obligations of shareholders and boards of directors in companies governed by the laws of U.S. jurisdictions. In the performance of its duties, our board is required by Danish law to consider the interests of our company, its shareholders, its employees and other stakeholders, in all cases with due observation of the principles of reasonableness and fairness. It is possible that some of these parties will have interests that are different from, or in addition to, the interests of our shareholders. See "Description of Share Capital and Articles of Association—Articles of Association and Danish Corporate Law."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that reflect our current expectations and views of future events. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Business.” Known and unknown risks, uncertainties and other factors, including those listed under “Risk Factors,” may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements.

You can identify some of these forward-looking statements by words or phrases, such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “is/are likely to,” “potential,” “continue” or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include statements relating to:

- the ability of our clinical trials to demonstrate acceptable safety and efficacy of our product candidate, and other positive results;
- the timing, progress and results of clinical trials for our product candidate, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available, and our research and development programs;
- the timing, scope and likelihood of regulatory filings, NDA submissions and approvals, including the NDA process for arimoclomol for the treatment of NPC and final regulatory approval of arimoclomol;
- our ability to obtain marketing approvals of our product candidate and to meet existing or future regulatory standards or comply with post-approval requirements;
- our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our cash and net proceeds of the global offering;
- our payments of future milestone payments to our licensing partners, and the expected timing of such payments;
- our expectations regarding the potential market size and the size of the patient populations for our product candidate, if approved for commercial use;
- our expectations regarding the potential advantages of our product candidate over existing therapies;
- the impact of COVID-19 on our business and operations;
- our potential to enter into new collaborations;
- our expectations with regard to our ability to develop additional product candidates or product candidates for other indications our ability to identify additional products, product candidates or technologies with significant commercial potential that are consistent with our commercial objectives;
- our expectations with regard to the willingness and ability of our current and future licensing and collaboration partners to pursue the development of our product candidate;

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- our ability to develop, acquire and advance additional product candidates into, and successfully complete, clinical trials;
- the initiation, timing, progress and results of our preclinical studies and clinical trials, and our research and development programs;
- the commercialization and market acceptance of our product candidate;
- our marketing and manufacturing capabilities;
- the pricing of and reimbursement for our product candidate;
- the implementation of our business model and strategic plans for our business and product candidate;
- our ability to operate our businesses without infringing the intellectual property rights and proprietary technology of third parties;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidate;
- our analysis of our actual or potential patent infringement claims and the rights of our collaboration partners with respect to such claims;
- estimates of our expenses, future revenue, capital requirements, our needs for additional financing and our ability to obtain additional capital;
- regulatory development in the United States, Europe and other jurisdictions;
- our exposure to additional scrutiny as a U.S. public company;
- our ability to effectively manage our anticipated growth;
- our ability to attract and retain qualified employees and key personnel;
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act;
- our use of proceeds from the global offering;
- our financial performance;
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act and qualify as a foreign private issuer; and
- developments and projections relating to our competitors and our industry, including competing therapies.

These forward-looking statements involve various risks and uncertainties. Although we believe that our expectations expressed in these forward-looking statements are reasonable, our expectations may later be found to be incorrect. Our actual results could be materially different from our expectations. Important risks and factors that could cause our actual results to be materially different from our expectations are generally set forth in

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“Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” “Business,” and other sections in this prospectus. You should read thoroughly this prospectus and the documents that we refer to with the understanding that our actual future results may be materially different from and worse than what we expect. We qualify all of our forward-looking statements by these cautionary statements.

The forward-looking statements made in this prospectus relate only to events or information as of the date on which the statements are made in this prospectus. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this prospectus and the documents that we refer to in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect.

USE OF PROCEEDS

We estimate that the net proceeds to us from the global offering, after deducting estimated underwriting commissions and estimated offering expenses payable by us, to be approximately \$90.4 million, or \$104.4 million if the underwriters exercise their option in full to purchase additional ordinary shares (which may be in the form of ADSs). These estimates are based on an assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 (assuming a DKK/U.S. dollar exchange rate of 6.2967 DKK per \$1.00 as of September 17, 2020).

A \$1.00 increase or decrease in the assumed initial offering price of \$13.13 per ADS would increase or decrease, as applicable, the net proceeds to us from the global offering by \$7.1 million, assuming the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us, as set forth on the front cover of this prospectus, remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. An increase or decrease of 1.0 million in the number of ordinary shares (including ordinary shares in the form of ADSs) we are offering would increase or decrease, as applicable, the net proceeds to us from the global offering by \$12.2 million, assuming the assumed initial offering price remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. The actual net proceeds payable to us will adjust based on the actual number of ordinary shares (including ordinary shares in the form of ADSs) sold by us, the actual initial offering price and other terms of the global offering determined at pricing.

The principal purposes of the global offering are to obtain additional capital to support our operations, establish a public market for the ADSs and facilitate our future access to the public capital markets.

We expect to use the net proceeds from the global offering, together with our existing cash, as follows:

- approximately \$35 million to \$40 million to continue the regulatory approval process for and fund the commercial launch, if approved, of arimoclomol for the treatment of NPC;
- approximately \$10 million to \$15 million to advance the clinical development of arimoclomol for the treatment of ALS;
- approximately \$8 million to \$12 million to advance the clinical development of arimoclomol for the treatment of sIBM;
- approximately \$2 million to \$3 million to advance the clinical development of arimoclomol for the treatment of neurological Gaucher disease; and
- the remaining amounts for working capital and general corporate purposes, including to fund the development of our next generation of HSP amplifiers.

Based on our current operating plan, we believe that the net proceeds from the global offering, together with our existing cash, will enable us to fund our planned operating expenses and capital expenditures through the next 24 months. The net proceeds from the global offering, together with our existing cash, may be insufficient to fund our product candidate through regulatory approval for one or more indications. We anticipate these funds will be sufficient to fund the commercial launch, if approved, of arimoclomol for the treatment of NPC. We also anticipate these funds will be sufficient to fund the completion of our Phase 3 trial of arimoclomol for the treatment of ALS, completion of our Phase 2/3 trial of arimoclomol for the treatment of sIBM and the initiation of pivotal-stage clinical development of arimoclomol for the treatment of neurological Gaucher disease. We anticipate that we will need additional funds to obtain regulatory approval of arimoclomol for the treatment of ALS, obtain regulatory approval of arimoclomol for the treatment of sIBM and complete the pivotal-stage clinical development of arimoclomol for the treatment of neurological Gaucher disease. It is difficult to predict

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the cost and timing required to complete development and obtain regulatory approval of, and commercialize, our product candidate due to, among other factors, the relatively short history of our experience with initiating, conducting and completing clinical trials, obtaining regulatory approval and commercializing our product candidate, the rate of subject enrollment in our clinical trials, filing requirements with various regulatory agencies, clinical trial results and the actual costs of manufacturing and supplying our product candidate.

Our expected use of the net proceeds from the global offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of the global offering or the amounts that we will actually spend on the uses set forth above. We believe that opportunities may exist from time to time to expand our current business through licenses with or acquisitions of, or investments in, complementary businesses, products or technologies. While we have no current agreements, commitments or understandings for any specific licenses, acquisitions or investments at this time, we may use a portion of the net proceeds for these purposes.

Our management will have broad discretion over the use of the net proceeds from the global offering. The amounts and timing of our expenditures will depend upon numerous factors, including the results of our research and development efforts, the timing, cost and success of preclinical studies and ongoing clinical trials or clinical trials we may commence in the future, the timing of regulatory submissions, our ability to obtain additional financing, the amount of cash obtained through our existing collaborations and future collaborations, if any, and any unforeseen cash needs.

Pending any use described above, we intend to invest the net proceeds of the global offering in short- and intermediate-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our ordinary shares and we do not anticipate paying any cash dividends on our ordinary shares in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business. In addition, the Loan Agreement prohibits us to agree, make or agree to make any distribution by way of dividend or otherwise without the written consent of the lender thereunder. Any future determination related to our dividend policy and the declaration of any dividends will be made at the discretion of our board of directors and will depend on a number of factors, including our results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant.

If we pay any dividends on our ordinary shares, we will pay those dividends, which are payable in respect of the ordinary shares underlying the ADSs to the depository, as the registered holder of such ordinary shares, and the depository then will pay such amounts to our ADS holders in proportion to the ordinary shares underlying the ADSs held by such ADS holders, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. See “Description of American Depositary Shares.” Cash dividends on our ordinary shares, if any, will be paid in U.S. dollars.

Legal and Regulatory Requirements

In accordance with the DCA, dividends, if any, are declared with respect to a financial year at the annual general meeting of shareholders in the following year, where the statutory annual report (which includes the audited financial statements) for that financial year is approved. Any resolution to distribute interim dividends within six months of the date of the statement of financial position as set out in our latest adopted annual report must be accompanied by the statement of financial position from our latest annual report or an interim statement of financial position which must be reviewed by our auditor. If the decision to distribute interim dividends is passed more than six months after the date of the statement of financial position as set out in our latest adopted annual report, an interim statement of financial position must be prepared and reviewed by our auditor. The statement of financial position or the interim statement of financial position, as applicable, must show that sufficient funds are available for distribution. Dividends may not exceed the amount recommended by the board of directors for approval by the general meeting of shareholders. Moreover, dividends and interim dividends may only be made out of distributable reserves and may not exceed what is considered sound and adequate with regard to our financial condition or be to the detriment of our creditors and such other factors as the board of directors may deem relevant.

In accordance with the DCA, share buybacks, if any, may only be carried out by the board of directors using funds that could have been distributed as dividends at the latest annual general meeting of shareholders. Any share buyback must be conducted in accordance with an authorization obtained at a general meeting of our shareholders. The authorization must be granted for a defined period of time not exceeding five years. In addition, the authorization must specify the maximum permitted value of treasury shares as well as the minimum and maximum amount that we may pay as consideration for such shares. A decision by our board of directors to engage in share buybacks, if any, will be made in accordance with the factors applicable to dividend payments set forth above.

See “Taxation—Material Danish Income Tax Considerations” for a description of Danish withholding taxes and certain other Danish considerations relevant to the purchase or holding of ordinary shares and ADSs and “Taxation—Material U.S. Federal Income Tax Consequences for U.S. Holders” for a description of U.S. federal income tax considerations relevant to the purchase or holding of ordinary shares and ADSs.

CAPITALIZATION

The following table sets forth our cash and capitalization as of June 30, 2020 on:

- an actual basis; and
- on an as adjusted basis to give effect to our issuance and sale of ordinary shares (including ordinary shares in the form of ADSs) in the global offering, assuming an initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020 (assuming a DKK/U.S. dollar exchange rate of 6.2967 DKK per \$1.00 as of September 17, 2020) and after deducting estimated underwriting commissions and estimated offering expenses payable by us.

The as adjusted information set forth below is unaudited and for illustrative purposes only and it will be adjusted based on the actual initial offering price and other terms of the global offering determined at pricing. You should read this information in conjunction with our financial statements and the related notes appearing elsewhere in this prospectus, as well as the sections of this prospectus titled “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

(in thousands)	As of June 30, 2020			
	\$ (1)	Actual DKK	As Adjusted (2) \$ (1)	DKK
Cash	92,049	610,448	177,907	1,179,842
Borrowings				
Current borrowings	4,517	29,954	4,517	29,954
Non-current borrowings	5,553	36,827	5,553	36,827
Total borrowings	10,070	66,781	10,070	66,781
Shareholder’s Equity				
Share capital	4,078	27,045	5,227	34,661
Share premium	243,015	1,611,630	327,726	2,173,408
Other reserves	867	5,753	867	5,753
Accumulated deficit	(171,642)	(1,138,293)	(171,642)	(1,138,293)
Total equity	76,319	506,135	162,178	1,075,529
Total capitalization	86,389	572,916	172,248	1,142,310

- (1) Translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020.
- (2) Each \$1.00 increase or decrease in the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS) would increase or decrease, as applicable, each of cash, share capital, total equity and total capitalization by DKK 44.6 million (\$7.1 million), assuming the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting commissions and estimated offering expenses payable by us. We may also increase or decrease the number of ordinary shares (including ordinary shares in the form of ADSs) we are offering. An increase or decrease of 1.0 million in the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us would increase or decrease, as applicable, each of cash, share capital, total equity and total capitalization by DKK 76.9 million (\$12.2 million), assuming no change in the assumed initial offering price and after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

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The number of ordinary shares issued and outstanding, as adjusted in the table above, is based on 27,044,929 of our ordinary shares outstanding as of June 30, 2020, and excludes:

- subject to certain vesting criteria being satisfied, up to 242,950 ordinary shares that may be issued to cover the delivery of ordinary shares to participants of the LTIP as of June 30, 2020;
- up to 26,336 ordinary shares underlying unvested or unexercised RSUs as of June 30, 2020; and
- bonus shares that we have agreed to issue pursuant to a license agreement with the University of Kansas and UCL Business PLC as described in “Business—Material Agreements”

In addition, our board of directors may decide to issue ordinary shares pursuant to the authorizations to our board of directors described under the section titled “Description of Share Capital and Articles of Association—Authorizations to Our Board of Directors.”

DILUTION

If you invest in the ordinary shares or ADSs in the global offering, your interest will be immediately diluted to the extent of the difference between the initial offering price per ordinary share or ADS in the global offering and our net tangible book value per ordinary share after the global offering. Dilution results from the fact that the initial offering price is substantially in excess of the net book value per ordinary share.

Our historical net tangible book value per ordinary share as of June 30, 2020 was \$74.7 million, or DKK18.32 per ordinary share (equivalent to \$2.76 per ADS). Historical net tangible book value per ordinary share represents the amount of our total consolidated tangible assets, less the amount of our total consolidated liabilities, all divided by the number of ordinary shares outstanding as of June 30, 2020. Dilution is determined by subtracting historical net tangible book value per ordinary share, after giving effect to the additional proceeds we will receive from the global offering, from the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020, after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

Without taking into account any other changes in net tangible book value after June 30, 2020, other than to give effect to our sale of the ordinary shares and ADSs offered in the global offering at the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), which was the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020, after deducting the estimated underwriting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2020 would have been \$4.76 per ordinary share, or \$4.76 per ADS. This represents an immediate increase in adjusted net tangible book value of \$2.00 per ordinary share (\$2.00 per ADS) to our existing shareholders and an immediate dilution in net tangible book value of \$8.37 per ordinary share (\$8.37 per ADS) to investors purchasing ADSs in the global offering.

The following table illustrates this dilution on a per ADS basis:

Assumed initial offering price per ADS	\$13.13
Historical net tangible book value per ADS as of June 30, 2020	\$2.76
Increase in net tangible book value attributable to the global offering	<u>2.00</u>
As adjusted net tangible book value per ADS as of June 30, 2020	4.76
Dilution per ADS to investors participating in the global offering	<u>\$ 8.37</u>

A DKK 6.2967 (\$1.00) increase or decrease in the assumed initial offering price of DKK 82.70 per ordinary share (\$13.13 per ADS), the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020, would increase or decrease, as applicable, our as adjusted net tangible book value as of June 30, 2020 after giving effect to the global offering (excluding the potential exercise of the underwriters of their option to purchase additional ordinary shares (including ordinary shares in the form of ADSs)) by approximately \$0.21 per ordinary share, or \$0.21 per ADS, and would increase or decrease the dilution in as adjusted net tangible book value per ADS to investors in the global offering by \$0.79 per ordinary share (\$0.79 per ADS), assuming no change to the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us as set forth on the front cover of this prospectus, and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. We may also increase or decrease the number of ordinary shares (including ordinary shares in the form of ADSs) we are offering. An increase of 1.0 million in the number of ordinary shares (including ordinary shares in the form of ADSs) we are offering would increase our as adjusted net tangible book value as of June 30, 2020 after the global offering (excluding the potential exercise by the underwriters of their option to purchase additional ordinary shares (including ordinary shares in the form of

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ADSs)) by approximately \$0.21 per ordinary share (\$0.21 per ADS), and would decrease dilution to investors in the global offering by approximately \$0.21 per ordinary share (\$0.21 per ADS), assuming the assumed initial offering price remains the same, after deducting the estimated underwriting commissions and estimated offering expenses payable by us. A decrease of 1.0 million in the number of ordinary shares (including ordinary shares in the form of ADSs) we are offering would decrease our as adjusted net tangible book value as of June 30, 2020 after the global offering (excluding the potential exercise by the underwriters of their option to purchase additional ordinary shares (including ordinary shares in the form of ADSs)) by approximately \$0.22 per ordinary share (\$0.22 per ADS), and would increase dilution to investors in the global offering by approximately \$0.22 per ordinary share (\$0.22 per ADS), assuming the assumed initial offering price remains the same, after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

The as adjusted information is illustrative only, and we will adjust this information based on the actual initial offering price and other terms of the global offering determined at pricing.

The following table summarizes, on an as adjusted basis as of June 30, 2020, the differences between existing shareholders and the investors with respect to the number of ordinary shares (in the form of ADSs or ordinary shares) purchased from us, the total consideration paid and the average price per ordinary share and per ADS paid before deducting the estimated underwriting commissions and estimated offering expenses payable by us. The total number of ordinary shares does not include ordinary shares issuable upon the underwriters' exercise in full of their option to purchase additional ordinary shares (including ordinary shares in the form of ADSs).

	Ordinary Shares Purchased (1)		Total Consideration		Average Price Per Ordinary Share
	Number	Percent	Amount (in millions)	Percent	
Existing shareholders	27,044,929	78.0%	\$ 247.1	71.2%	\$ 9.14
Investors participating in the global offering	7,616,146	21.9%	\$ 100.0	28.8%	\$ 13.13
Total	34,661,075	100%	\$ 347.1	100%	

(1) Includes ordinary shares in the form of ADSs. Each ADS represents one ordinary share.

If the underwriters exercise in full their option to purchase additional ordinary shares (which may be in the form of ADSs), the percentage of ordinary shares held by existing shareholders would be reduced to 75.5 % of the total number of ordinary shares outstanding after the offering, and the number of ordinary shares held by investors participating in the global offering would be increased to 24.5% of the total number of ordinary shares outstanding after the global offering (in each case, including ordinary shares underlying ADSs).

A \$1.00 increase or decrease in the assumed initial offering price of \$13.13 per ordinary share (\$13.13 per ADS), the last reported sale price of our ordinary shares on Nasdaq Copenhagen on September 17, 2020, would increase or decrease total consideration paid by new investors by \$7.6 million, assuming that the number of ordinary shares (including ordinary shares in the form of ADSs) offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

The foregoing tables and calculations are based on 27,044,929 of our ordinary shares outstanding as of June 30, 2020, and excludes:

- subject to certain vesting criteria being satisfied, up to 242,950 ordinary shares that may be issued to cover the delivery of shares to participants of the LTIP as of June 30, 2020;
- up to 26,336 ordinary shares underlying unvested or unexercised RSUs as of June 30, 2020; and

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- bonus shares that we have agreed to issue pursuant to a license agreement with the University of Kansas and UCL Business PLC as described in “Business—Material Agreements”

To the extent that we issue additional ADSs or ordinary shares in the future, there will be further dilution to investors participating in the global offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our shareholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth our selected consolidated financial data for the periods indicated. We have derived the selected consolidated statements of profit or loss and other comprehensive income data for the years ended December 31, 2019 and 2018 and the selected consolidated statements of financial position data as at December 31, 2019 and 2018 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statements of profit or loss and other comprehensive income data for the six months ended June 30, 2020 and 2019 and the summary consolidated statements of financial position data as of June 30, 2020 from the unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited interim condensed consolidated financial statements on the same basis as the audited consolidated financial statements, and the unaudited financial data include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of our consolidated financial position and results of operations as of and for the periods presented.

Our consolidated financial statements are prepared and presented in accordance with IFRS, as issued by the IASB. IFRS differ in certain significant respects from U.S. GAAP. Our historical results are not necessarily indicative of results expected for future periods and our operating results for the six months ended June 30, 2020 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2020.

The selected consolidated financial data set forth below should be read together with our consolidated financial statements and the related notes to those statements, as well as the section of this prospectus titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Selected Consolidated Statements of Profit or Loss and Other Comprehensive Income Data:

(In thousands, except per share data)	Six Months Ended June 30,			Years Ended December 31,		
	2020	2019	2019	2019	2018	2018
	\$ (1)	DKK	DKK	\$ (1)	DKK	DKK
Research and development expenses	(25,179)	(166,980)	(141,710)	(43,037)	(285,413)	(196,525)
General and administrative expenses	(11,848)	(78,575)	(23,345)	(7,621)	(50,541)	(35,127)
Operating loss	(37,027)	(245,555)	(165,055)	(50,658)	(335,954)	(231,652)
Financial income	19	126	152	48	316	5
Financial expenses	(1,201)	(7,967)	(1,500)	(1,110)	(7,359)	(3,453)
Loss before tax	(38,209)	(253,396)	(166,403)	(51,720)	(342,997)	(235,100)
Income tax benefit	299	1,981	2,495	829	5,500	5,500
Net loss for the period	(37,911)	(251,415)	(163,908)	(50,891)	(337,497)	(229,600)
Exchange difference from translation of foreign operation, net of tax DKK 0	(20)	(135)	(19)	10	67	42
Total comprehensive loss	(37,930)	(251,550)	(163,927)	(50,881)	(337,430)	(229,558)
Loss per share (2)						
Basic loss per share	(1.49)	(9.88)	(8.20)	(2.54)	(16.87)	(11.49)
Diluted loss per share	(1.49)	(9.88)	(8.20)	(2.54)	(16.87)	(11.49)

- (1) Translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020.
- (2) See Note 4.3 to our audited consolidated financial statements included elsewhere in this prospectus for further details regarding the calculation of basic and diluted loss per share.

Selected Consolidated Statements of Financial Position:

(in thousands)	As of June 30, 2020		As of December 31,		
	<u>\$ (1)</u>	<u>DKK</u>	<u>\$ (1)</u>	<u>2019</u>	<u>2018</u>
				<u>DKK</u>	<u>DKK</u>
Cash	92,049	610,448	18,636	123,588	394,706
Working capital (2)	77,865	516,384	12,400	82,237	370,389
Total assets	101,987	676,360	27,256	180,754	441,349
Share Capital	4,078	27,045	3,013	19,984	19,939
Total equity	76,319	506,135	7,987	52,969	388,249

(1) Translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020.

(2) We define working capital as current assets less current liabilities.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included elsewhere in this prospectus. The following discussion is based on our financial information prepared in accordance with IFRS, as issued by the IASB, which might differ in material respects from accounting principles generally accepted in other jurisdictions, including U.S. GAAP. Danish kroner amounts in this discussion and analysis have been translated solely for convenience into U.S. dollars at an assumed exchange rate of DKK 6.6318 per \$1.00, which was the rounded official exchange rate of such currencies as of June 30, 2020. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. You should review the "Risk Factors" section of this prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a late-stage biopharmaceutical company harnessing the amplification of HSPs in order to develop and commercialize novel therapeutics for the treatment of neurodegenerative orphan diseases. In September 2020, the FDA accepted our NDA for our product candidate, arimoclomol, for NPC, with priority review. The FDA has set a target action date of March 17, 2021 under the PDUFA for completion of its review of our NDA. We also intend to submit a MAA to the EMA in the second half of 2020. Arimoclomol is also in registrational clinical trials for the treatment of ALS and sIBM, and we intend to advance into pivotal-stage clinical development in neurological Gaucher disease. Arimoclomol is an orally- or naso/gastrically-administered small molecule that crosses the blood-brain barrier and is designed to selectively amplify the natural role of endogenous HSPs, which protect against cellular toxicity caused by protein misfolding, aggregation and lysosomal dysfunction. In our Phase 2/3 clinical trial of arimoclomol in NPC, we have observed evidence of slowing of disease progression, supporting our registration effort in the United States and Europe. Results observed in the Phase 2 clinical trials for ALS, sIBM and Gaucher disease demonstrated the potential of arimoclomol to slow the progression of such diseases, forming the basis of our ongoing registrational clinical trials in ALS and sIBM, as well as our intention to advance into pivotal-stage clinical development in neurological Gaucher disease. We also believe that arimoclomol has been well tolerated in clinical trials including more than 500 human subjects for various indications. We are committed to leveraging our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial experience and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases.

We do not have any product candidates approved for sale and have not generated any revenue from product sales. Since our inception we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, conducting preclinical studies and clinical trials, building out our commercial infrastructure and establishing and protecting our intellectual property portfolio. To date, we have raised aggregate gross proceeds of DKK 1,731 million (\$261 million) through sales of equity securities. This includes gross proceeds of DKK 600 million (\$90 million) raised in our initial public offering in Denmark in November 2017 and gross proceeds of DKK 745 million (\$112 million) raised in our directed issue and private placement in February 2020. In addition, in August 2019, we borrowed €9 million under a loan agreement with Kreos. Our ability to generate product revenue sufficient to achieve profitability will depend heavily on the successful development and eventual commercialization of arimoclomol in at least one indication.

Since inception, we have incurred significant operating losses and net losses. For the six-months ended June 30, 2020, our net loss was DKK 251 million (\$38 million). Our net losses were DKK 338 million (\$51 million) and DKK 230 million for the years ended December 31, 2019 and 2018, respectively. As of June 30, 2020, we had an accumulated deficit of DKK 1,138 million (\$172 million). We expect to continue to

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incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- continue our ongoing clinical programs evaluating arimoclomol as well as initiate and complete additional preclinical studies and clinical trials;
- pursue regulatory approval for arimoclomol in the United States and Europe and other jurisdictions;
- further establish a commercialization infrastructure, including hiring sales representatives, and scale up external manufacturing and distribution capabilities to commercialize any product candidates for which we may obtain regulatory approval, including arimoclomol;
- adapt our regulatory compliance efforts to incorporate requirements applicable to marketed products;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, manufacturing and scientific personnel;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts;
- seek to develop, in-license or acquire additional product candidates; and
- incur additional legal, accounting, investor relations and other expenses associated with operating as a U.S. public company following the completion of the global offering.

As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. If arimoclomol for the treatment of NPC is approved, the earliest we would expect to generate revenue from product sales is 2021. Even if we generate revenue from product sales, we expect to continue to fund our operations through public or private equity or debt financings, debt borrowings or other sources, including strategic collaborations. We may, however, be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to develop arimoclomol or any additional future product candidate, if developed. If we raise additional funds through collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish rights to future revenue streams, research programs, product candidates or our intellectual property, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate our product development programs or any future commercialization efforts or grant rights to develop and market arimoclomol or any other future product candidates that we would otherwise prefer to develop and market ourselves.

Because of the numerous risks and uncertainties associated with 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 or maintain profitability. Even if we are able to generate revenue from product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

As of June 30, 2020, we had DKK 611 million (\$92 million) in cash. We expect that the net proceeds from the global offering, together with our existing cash, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months. We have based these estimates on assumptions that may prove to be imprecise or incorrect, and we may use our available capital resources sooner than we currently expect. See “—Liquidity and Capital Resources.”

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We were incorporated in 2009 in Denmark. Our wholly-owned subsidiaries are Orphazyme US, Inc., incorporated in Delaware in 2018, and Orphazyme Schweiz GmbH, incorporated in Zug, Switzerland in 2020. We had 114 full-time equivalent employees as of June 30, 2020.

Our Licensing Agreements

Asset Purchase Agreement with CytRx

In May 2011, we entered into an Asset Purchase Agreement with the biopharmaceutical company CytRx. Pursuant to this agreement, CytRx sold and transferred certain preclinical and clinical data, patents and other intellectual property rights, and other assets, including contractual rights and obligations relating to a portfolio of chemical compounds, including arimoclomol, to us.

Under the terms of the Asset Purchase Agreement, we made an up-front cash payment of \$150,000 and further agreed to make future payments to CytRx contingent upon the achievement of specified clinical/regulatory and sales milestones as well as royalty payments based on a specified percentage of any eventual net sales of products containing one of the purchased compounds, as summarized further below.

Clinical/Regulatory Milestone payment obligations (non-ALS or stroke products)

We have agreed to pay CytRx clinical and regulatory milestone payments for the first two products being developed or labeled for indications other than for the treatment or prevention of ALS or stroke (non-ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. The maximum aggregate amount of milestone payments that may be triggered is \$12.1 million for the first non-ALS or stroke product and \$10.3 million for the second non-ALS or stroke product developed assuming (for both products) approval in the European Union (or certain major European markets), United States and Japan. A second non-ALS or stroke product is not considered a second product (and does not trigger milestone payments) unless it contains a different compound than the first non-ALS or stroke product. In 2016, we paid CytRx \$0.1 million for achievement of a clinical milestone for the first product.

Clinical/Regulatory Milestone payment obligations (ALS or stroke products)

We have also agreed to pay CytRx clinical and regulatory milestone payments (payable one time only) for each product developed that is being developed or labelled for the treatment or prevention of ALS or stroke (ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. The maximum aggregate amount of milestone payments that may be triggered per ALS or stroke product is \$23.8 million assuming approval in the European Union (or certain major European markets), the United States and Japan. The milestone obligations are payable only once per ALS or stroke product. A subsequent ALS or stroke product may achieve an additional maximum aggregate amount of \$23.8 million in milestone payments, only if it contains a different compound than an ALS or stroke product previously achieving the same milestone, or if it contains the same compound as another ALS or stroke product previously achieving the same milestone but is for a different indication. In 2018, we paid CytRx \$0.3 million for achievement of a clinical milestone for the first product.

Sales milestones. We also agreed to pay CytRx milestone payments upon reaching certain aggregated annual global net sales of all products developed by us containing any of the compounds purchased from CytRx. The first milestone payment is triggered on aggregated annual global net sales exceeding \$100 million. The aggregate milestone payment obligations may be up to \$50 million assuming aggregated annual global net sales in excess of \$1 billion.

Royalties. We have agreed to pay CytRx a low teens double-digit royalty on net sales of all products developed by us, our affiliates or licensees which are labeled or prescribed for the treatment or prevention of ALS or stroke and a mid-single digit royalty on net sales of all other products developed by us or our affiliates or licensees containing any of the compounds purchased from CytRx. Royalties accrue on a country-by-country and

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product-by-product basis until the latest of expiration of relevant patent claims in the country covering such product, expiry of regulatory exclusivity in the country for such product or ten years from the date of the approval of the product in the country. The royalty rates are subject to reductions for patent expiration, lack of regulatory exclusivity, third party payments and generic competition. Under the terms of the Asset Purchase Agreement, we were assigned and became party to a royalty agreement with the ALS Charitable Remainder Trust pursuant to which we are obliged to pay a 1% royalty to the ALS Charitable Remainder Trust on worldwide net sales of arimoclomol for the treatment of ALS.

We have no contractual obligations to CytRx to develop or commercialize any products under the terms of the Asset Purchase Agreement and we cannot be held liable towards CytRx for our failure to do so.

We capitalize amounts paid to CytRx as an acquired license right, as we assess that the consideration paid reflects market expectations about the probability that future economic benefits will flow us. The acquired license is not being amortized until approval of the underlying asset has been received from regulatory authorities.

Exclusive License Agreement with University of Miami

In September 2019, we entered into an exclusive license agreement with the University of Miami on behalf of itself, Emory University and Massachusetts General Hospital. Pursuant to the exclusive license agreement, we have been granted a global royalty-bearing, exclusive license to all data, know-how, inventions and technology generated by the aforementioned institutions in a Phase 2 clinical trial of arimoclomol for the treatment of ALS with the A4V SOD1 mutation to research, develop, make, use or sell certain pharmaceutical products or processes containing arimoclomol. Under the license agreement, we are required to use commercially reasonable efforts to develop and commercialize the licensed product. The license is subject to rights of the U.S. federal government.

Under the terms of the exclusive license agreement, we made an up-front cash payment of \$75,000 and further agreed to make certain future payments, including (i) a development milestone payment of \$1,150,000 upon receiving regulatory approval for a pharmaceutical product containing arimoclomol for which the intended indication is ALS if the institution's Phase 2 clinical trial results were used in support of such regulatory approval, (ii) annual license fees from 2023 until the earlier of 2033 or termination of the agreement for a maximum aggregate amount of \$570,000 and (iii) beginning on the date of first commercial sale by us, our affiliates or sublicensees of a licensed product or licensed process in a country, a low single-digit royalty on net sales of licensed products or licensed processes on a product-by-product and country-by-country basis for a period of ten years thereafter unless the agreement is terminated earlier. Any annual license fees will be creditable against other payments due in the same calendar year.

The up-front cash payment was capitalized as an acquired license right, which will not be amortized until approval of the underlying asset has been received from regulatory authorities.

License Agreement with University of Kansas and UCL Business PLC

In October 2017, we entered into a license agreement with the University of Kansas, KU Center for Technology Commercialization Inc., Kansas Life Sciences Development Company Inc. and UCL Business PLC (a wholly-owned subsidiary of University College London, which subsequently has been converted into a Ltd). The license agreement grants us the global, royalty bearing exclusive license to all data, know-how, inventions and patent rights generated in the course of the ongoing Phase 2/3 clinical trial for testing arimoclomol in sIBM and other relevant data to research, develop, make, sell and otherwise commercialize pharmaceutical products containing arimoclomol for any purpose. Such license grant is subject to rights held by the U.S. government. The trial was initiated in August 2017 with the University of Kansas as sponsor and supported by an FDA grant. Sponsorship of the trial was transferred to us in December 2017.

Under the terms of the license agreement, we are obliged to pay an aggregate royalty of a low single-digit percentage of net sales of licensed products sold for the treatment, diagnosis, palliation or prevention in humans of sIBM. We are required to use commercially diligent efforts to develop and commercialize such products and to perform the development plan for the aforementioned clinical trial. The license agreement also provides that, in consideration of the license, we are obliged to issue bonus shares in favor of the Kansas Life Sciences Development Company Inc. (for the University of Kansas) and UCL Business Ltd, for up to an aggregate value of \$2.5 million depending on the amount of the FDA grant to the universities spent the preceding calendar year (with a price per ordinary share calculated based on the average closing price of the ordinary shares on Nasdaq Copenhagen for the 30 days immediately prior to the date of issuance). The ordinary shares are required to be issued or delivered on a yearly basis subject to certain reporting requirements. As of June 30, 2020, 58,090 bonus shares had been issued. We are also responsible for the enforcement, prosecution and maintenance of licensed patents and all associated costs, subject to the consultation rights of the University of Kansas and UCL Business Ltd.

The license is being amortized over the duration of the license agreement, which has been estimated to be approximately 14 years. For the six-month period ended June 30, 2020, we recognized DKK 0.4 million (\$0.1 million) in amortization expense within research and development expenses. Amortization expense for the years ended December 31, 2019 and 2018 amounts to DKK 0.7 million (\$0.1 million) and DKK 0.7 million, respectively.

Components of Our Results of Operations

Operating Expenses

Research and Development Expenses

Research and development expenses consist primarily of costs incurred in connection with our research and development activities for arimoclomol and include:

- personnel expenses, including salaries, benefits and share-based compensation expense for personnel engaged in research and development functions;
- costs of funding research performed by third parties, such as CROs;
- costs of purchasing lab supplies and non-capital equipment used in designing, developing and manufacturing preclinical study and clinical trial materials;
- consultant fees related to research and development activities;
- expenses related to regulatory activities, including filing fees paid to regulatory agencies;
- facility costs including rent, depreciation and maintenance expenses, as allocated to research and development;
- amortization of intangible assets, as allocated to research and development;
- legal expenses related to the protection, defense and enforcement of our intellectual property; and
- payments under our third-party licensing agreements.

Research and development costs are expensed in the period in which they are incurred. Costs for certain activities, such as manufacturing and preclinical studies and clinical trials, are generally recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our CROs and contract manufacturing organizations, or CMOs.

Research and development activities are central to our business model. Indications that are in later stages of clinical development, such as NPC, ALS, sIBM, generally have higher development costs than those in

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earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We have not historically tracked our research and development expenses on an indication-by-indication or development program basis.

We expect our research and development expenses will increase for the foreseeable future as we seek to advance our product candidate. At this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the development of our product candidate. We are also unable to predict when, if ever, material net cash inflows will commence from sales of our product candidate. This is due to the numerous risks and uncertainties associated with developing product candidates, including the uncertainty of:

- successful enrollment in and completion of clinical trials;
- establishing an appropriate safety profile;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- timing and receipt of marketing approvals from applicable regulatory authorities;
- commercializing our product candidate, if approved, whether alone or in collaboration with others;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidate;
- business interruptions resulting from the COVID-19 pandemic;
- competition with other therapies;
- significant and changing government regulations;
- continued acceptable safety profiles of products following approval; and
- retention of key research and development personnel.

A change in the outcome of any of these variables with respect to the development of our product candidate would significantly change the costs, timing and viability associated with the product candidate's development. For example, if the FDA, EMA or another regulatory authority were to require us to conduct clinical trials beyond those that we anticipate will be required for the completion of clinical development of arimoclomol for a particular indication, or if we experience significant delays in our clinical trials due to patient enrollment or other reasons, including but not limited to COVID-19 pandemic, we would be required to expend significant additional financial resources and time on the completion of clinical development and our clinical development programs could be significantly delayed.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel expenses, including salaries, benefits and share-based compensation for employees in executive, finance and accounting functions as well as remuneration to the board of directors. General and administrative expense also includes corporate facility costs, including rent, utilities, depreciation and maintenance, not otherwise included in research and development expense, as well as legal fees related to intellectual property and corporate matters and fees for accounting and consulting services and investor relations. In addition, we include pre-commercial activities in general and

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administrative expenses, such as the build-up of our commercial organization, preparation of the EAP for NPC, tradename costs, market and pricing studies and related costs.

We anticipate that our general and administrative expenses will increase in the future to support continued research and development activities. If arimoclomol obtains regulatory approval in the United States or Europe, we expect that we would incur significantly increased expenses associated with continuing to build a commercial organization and sales and marketing team. We also anticipate that we will incur increased accounting, audit, legal, regulatory, compliance and director and officer insurance costs, as well as investor and public relations expenses associated with operating as a U.S. public company.

Financial Income and Expenses

Financial income and expenses include interest income and expense, gains and losses due to the change in fair value of the Loan Agreement facilitation fee accounted for as an embedded call option, gains and losses due to changes in foreign exchange rates and other immaterial miscellaneous items.

Income Tax Benefit

Income tax benefit allows the company to obtain the tax value of costs incurred in connection with research and development activities under the Danish Tax Credit Regime. As a Danish resident trading entity, we are subject to Danish corporate taxation. Due to the nature of our business, we have generated losses since inception. As a company that carries out extensive research and development activities, we benefit from the Danish research and development tax credit regime and are able to surrender some of our trading losses that arise from our research and development activities for a cash rebate of up to DKK 5.5 million (\$0.8 million) of eligible research and development expenditure. Qualifying expenditures largely comprise employment costs for research staff, consumables and certain internal overhead costs incurred as part of research projects.

Results of Operations

Comparison of the Six Months Ended June 30, 2020 and 2019

The following table summarizes our results of operations for the six-month periods ended June 30, 2020 and 2019 (in thousands):

	Six Months Ended June 30,			
	2020	2020	2019	Change
	(\$)	(DKK)		(DKK)
Consolidated Statement of Profit or Loss:				
Operating expenses:				
Research and development expenses	(25,179)	(166,980)	(141,710)	(25,270)
General and administrative expenses	(11,848)	(78,575)	(23,345)	(55,230)
Financial income	19	126	152	(26)
Financial expenses	(1,201)	(7,967)	(1,500)	(6,467)
Loss before tax	<u>(38,209)</u>	<u>(253,396)</u>	<u>(166,403)</u>	<u>(86,993)</u>
Income tax benefit	299	1,981	2,495	(514)
Net loss	<u>(37,911)</u>	<u>(251,415)</u>	<u>(163,908)</u>	<u>(87,507)</u>

Operating Expenses

Research and Development Expenses

Research and development expenses for the six-month period ended June 30, 2020 were DKK 167.0 million (\$25.2 million), compared to DKK 141.7 million for the six-month period ended June 30, 2019. The increase of DKK 25.3 million (\$3.8 million) was mainly attributable to an increase of DKK 14.2 million for the initiation of three clinical pharmacology registration trials in the six months ended June 30, 2020 and an increase of DKK 11.1 million in employee costs due to the increase in full-time research and development employees from 60 on June 30, 2019 to 77 on June 30, 2020.

General and Administrative Expenses

General and administrative expenses for the six-month period ended June 30, 2020 were DKK 78.6 million (\$11.9 million), compared to DKK 23.3 million for the six-month period ended June 30, 2019. The increase of DKK 55.3 million (\$8.3 million) was primarily due to the build-up of our commercial organization as well as expenses related to our support functions.

Pre-launch expenses represented DKK 40.4 million (\$6.1 million) of the increase, which was mainly due to the escalation of commercial launch preparation activities, including the strengthening of our U.S.-based and Switzerland-based commercial team of 12 additional full-time employees; and an increase in medical affairs activities, particularly for NPC, as we further engaged with the scientific community through our communication and education programs.

Administrative expenses represented the remaining DKK 14.9 million (\$2.2 million) increase, which was mainly due to audit, legal, investor relations, other external assistance, and share-based payment expenses; and the hiring of ten additional administrative, finance and legal full-time employees to support our growing organization.

Financial Income and Expenses

Net financial expenses for the six-month period ended June 30, 2020 were DKK 7.8 million (\$1.2 million) compared to DKK 1.3 million for the six-month period ended June 30, 2019. The increase of DKK 6.5 million (\$1.0 million) was mainly related to the Loan Agreement with Kreos, including interest expense of DKK 5.0 million (\$0.8 million) and an increase of DKK 0.7 million (\$0.1 million) related to the change in fair value of the facilitation fee accounted for as an embedded call option. The remaining increase of DKK 0.8 million (\$0.1 million) results from interest paid on cash balances in the bank due to negative interest rates.

Income Tax Benefit

Income tax benefit for the six-month period ended June 30, 2020 was DKK 2.0 million (\$0.3 million) compared to DKK 2.5 million for the six-month period ended June 30, 2019. Income tax benefit for the two periods include a tax credit for research and development costs at the applicable tax rate under the Danish Corporate Income Tax Act. The amount of the tax benefit in the first half of 2020 has been reduced by an income tax expense in our subsidiaries in the U.S. and Switzerland. Our corporate income tax rate in Denmark was 22%. However, for the six-month periods ended June 30, 2020 and 2019, we did not recognize any deferred tax assets considering uncertainties surrounding their potential utilization.

[Table of Contents](#)**Comparison of Years Ended December 31, 2019 and 2018**

The following table summarizes our results of operations for the years ended December 31, 2019 and 2018 (in thousands):

	<u>2019</u>	<u>Year Ended December 31,</u>			
	<u>(\$)</u>	<u>2019</u>	<u>(DKK)</u>	<u>2018</u>	<u>Change</u>
					<u>(DKK)</u>
Consolidated Statement of Profit or Loss:					
Operating expenses:					
Research and development expenses	(43,037)	(285,413)	(196,525)	(88,888)	
General and administrative expenses	(7,621)	(50,541)	(35,127)	(15,414)	
Financial income	48	316	5	311	
Financial expenses	(1,110)	(7,359)	(3,453)	(3,906)	
Loss before tax	<u>(51,720)</u>	<u>(342,997)</u>	<u>(235,100)</u>	<u>(107,897)</u>	
Income tax benefit	829	5,500	5,500	—	
Net loss	<u>(50,891)</u>	<u>(337,497)</u>	<u>(229,600)</u>	<u>(107,897)</u>	

Operating Expenses*Research and Development Expenses*

Research and development expenses for the year ended December 31, 2019 were DKK 285.4 million (\$43.0 million), compared to DKK 196.5 million for the year ended December 31, 2018. The increase of DKK 88.9 million (\$13.4 million) was mainly attributable to an increase of DKK 63.8 million (\$9.6 million) in our external costs associated with our development activities primarily due to the ramp-up of the sIBM Phase 2/3 clinical trial and the Phase 3 clinical trial for ALS, the initiation of open-label extensions for these clinical trials and the initiation of preclinical studies to support our anticipated NDA filing of arimoclomol for the treatment of NPC. The increase in clinical trial activities also demanded increased amounts of arimoclomol, resulting in higher costs incurred with our contract manufacturing organization. During 2019 we also grew our organization from 46 to 70 full-time research and development employees, which caused our research and development employee costs to increase by DKK 23.9 million (\$3.6 million).

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2019 were DKK 50.5 million (\$7.6 million), compared to DKK 35.1 million for the year ended December 31, 2018. This increase of DKK 15.4 million (\$2.3 million) was primarily attributable to increased personnel expenses of DKK 10.2 million (\$1.5 million) as our general and administrative employee headcount increased from 11 to 16; an increase of DKK 7.9 million (\$1.2 million) in external costs attributed to legal, accounting, and investor relations activities; and a decrease of DKK 2.9 million (\$0.4 million) in travel and related expenses.

Financial Income and Expenses

Net financial expenses for the year ended December 31, 2019, were DKK 7.0 million (\$1.1 million), compared to DKK 3.4 million for the year ended December 31, 2018. This increase of DKK 3.6 million (\$0.5 million) was primarily attributable to an increase of DKK 3.2 million (\$0.5 million) in interest expense recognized on the Loan Agreement; an increase of DKK 1.7 million (\$0.3 million) due to the write-off of transaction costs for Tranche 2 of the Loan Agreement that was not drawn down; and an increase of DKK

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0.4 million (\$0.1 million) on the change in fair value of the facilitation fee accounted for as an embedded call option. See “Liquidity and Capital Resources – Sources of Liquidity.” An increase of DKK 0.6 million (\$0.1 million) was also due to interest expense on the lease obligations. In addition, the net decrease in our interest expense on our cash balance in Denmark was DKK 1.9 million (\$0.3 million). The remaining decrease of DKK 0.4 million (\$0.1 million) was primarily due to foreign currency exchange.

Income Tax Benefit

Income tax benefit for each of the years ended December 31, 2019 and 2018 was DKK 5.5 million (\$0.8 million). Our corporate income tax rate in Denmark was 22%. However, for each of the years ended December 31, 2019 and 2018, we did not recognize any deferred tax assets considering uncertainties surrounding their potential utilization. Accumulated unrecognized tax assets at December 31, 2019 primarily comprising tax deductible losses and deferred tax on intangible assets amounted to DKK 168 million.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have incurred significant operating losses. We expect to incur significant expenses and operating losses for the foreseeable future as we advance the clinical development of our product candidate. We expect that our research and development and general and administrative expenses will increase in connection with conducting additional clinical trials for our product candidate, contracting with CMOs and CROs to support preclinical studies and clinical trials, expanding our intellectual property portfolio, and providing general and administrative support for our operations. As a result, we will need additional capital to fund our operations, which we may obtain from additional equity or debt financings, collaborations, licensing arrangements or other sources.

We do not have any product candidates approved for sale and have not generated any revenue from product sales. Since our inception we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, conducting preclinical studies and clinical trials, building out our commercial infrastructure and establishing and protecting our intellectual property portfolio. We raised gross proceeds of DKK 600 million (\$90 million) from our initial public offering in Denmark in November 2017. In addition, on February 11, 2020, we closed a directed issue and private placement of 7,032,937 ordinary shares for gross proceeds of DKK 745 million (\$112 million).

In August 2019, we entered into a structured debt facility, or the Loan Agreement, with Kreos, which consisted of two tranches of €9.0 million (DKK 67.2 million) each. We borrowed €9.0 million from the first tranche, or the Term Loan, but did not draw on the second tranche prior to the expiration date on January 1, 2020. We are required to repay the Term Loan over 42 months with the first 12 months requiring interest only payments at a nominal annual fixed interest rate of 9.75% and the remaining 30 months requiring equal installments comprising principal and interest. Early prepayment of the borrowed amounts may be made in whole but not in part, with the repayment amount being equal to the principal outstanding plus the sum of all the interest repayments that would have been paid throughout the remainder of the loan discounted at an annual rate of 4.0%. The Loan Agreement also provides that we will pay Kreos a facilitation fee upon the request of Kreos, which request may be made in its sole discretion at any time prior to the earlier of August 27, 2024 and the date of delisting of our ordinary shares, including ADSs, from a securities exchange. The facilitation fee is equal to the greater of (i) €0.9 million and (ii) the percentage increase in our ordinary share price between the 30-day volume-weighted average ordinary share price on the date of the Loan Agreement and the closing ordinary share price on the day immediately preceding the date of the notification applied to the aggregate amount of amounts borrowed. We have also agreed to pay Kreos an end of loan payment in an amount equal to 3% of the amount drawn under the first tranche on the date the Term Loan is repaid in full. The amounts due under the Loan Agreement are secured by certain of our assets, including our intellectual property rights,

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pursuant to a floating charge agreement registered with the Danish personal register in the initial principal amount of €9.0 million, our patents registered in Germany, the United Kingdom and the United States, and our shares in our U.S. subsidiary. Our obligations under the Loan Agreement are guaranteed by our U.S. subsidiary. The Loan Agreement includes certain covenants that, subject to certain limited exceptions, limit our ability to, among other things:

- sell, lease, convey, transfer, assign, license or otherwise of or deal with all or any material part of our property, assets or undertaking;
- sell, assign transfer or otherwise dispose of any assets that are subjects to liens under the Loan Agreement, any of our material assets or any share therein;
- incur or allow to remain outstanding any indebtedness;
- create or permit to subsist any liens; and
- declare and/or make or agree to make any distribution by way of dividend or otherwise, without the written consent of Kreos.

While we have not previously breached and are not currently in breach of these or any of the other covenants contained in the Loan Agreement, there can be no guarantee that we will not breach these covenants in the future.

As of June 30, 2020, we had DKK 610.5 million (\$92.0 million) in cash and an accumulated deficit of DKK 1,138.3 million (\$171.6 million).

Cash Flows

The following table shows a summary of our cash flows for the six months ended June 30, 2020 and 2019 and for the years ended December 31, 2019 and 2018 (in thousands):

	Six Months Ended June 30,			Year Ended December 31,		
	2020 (\$)	2020 (DKK)	2019 (DKK)	2019 (\$)	2019 (DKK)	2018 (DKK)
Net cash used in operating activities	(30,786)	(204,169)	(166,597)	(49,280)	(326,818)	(234,764)
Net cash used in investing activities	(265)	(1,760)	(1,225)	(495)	(3,285)	(2,346)
Net cash provided by financing activities	104,488	692,944	(1,061)	8,887	58,939	—
Net increase (decrease) in cash	<u>73,436</u>	<u>487,015</u>	<u>(168,883)</u>	<u>(40,888)</u>	<u>(271,164)</u>	<u>(237,110)</u>

Operating Activities

Net cash used in operating activities for the six-month period ended June 30, 2020 was DKK 204.2 million (\$30.8 million) compared to DKK 166.6 million in the six-month period ended June 30, 2019. The increase of DKK 37.6 million (\$5.7 million) was primarily attributable to the progression of clinical development activities, in particular the clinical pharmacology registration trials, as well as commercial launch preparation activities.

Net cash used in operating activities for the year ended December 31, 2019 was DKK 326.8 million (\$49.3 million) compared to DKK 234.8 million for the year ended December 31, 2018. The increase of DKK 92.0 million (\$13.9 million) was attributable primarily to higher general and administrative expenses and the progression of clinical development activities, in particular the ramp-up of the sIBM Phase 2/3 clinical trial, the Phase 3 clinical trial for ALS and the initiation of open-label extensions for these clinical trials.

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Investing Activities

Net cash used in investing activities for the six-month period ended June 30, 2020 was DKK 1.8 million (\$0.3 million) compared to DKK 1.2 million in the six-month period ended June 30, 2019. The increase of DKK 0.6 million (\$0.1 million) comprises the capitalization of our new ERP system.

Net cash used in investing activities for the year ended December 31, 2019 was DKK 3.3 million (\$0.5 million) compared to DKK 2.3 million for the year ended December 31, 2018. The increase of DKK 1.0 million (\$0.2 million) was attributable primarily to the purchase of equipment and payments pursuant to license agreements.

Financing Activities

Net cash provided by financing activities for the six-month period ended June 30, 2020 was DKK 692.9 million (\$104.5 million) compared to an outflow of DKK 1.1 million in the six-month period ended June 30, 2019. The increase of DKK 694.0 million (\$104.6 million) reflects the net proceeds of DKK 694.0 million from our directed issue and private placement in February.

Net cash provided by financing activities in the year ended December 31, 2019 was DKK 58.9 million (\$8.9 million), attributable primarily to the repayment of lease liabilities following our adoption of IFRS 16 as well as our borrowings under the Loan Agreement. There was no cash provided by financing activities in the year ended December 31, 2018.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, continue or initiate clinical trials of, and seek regulatory approval for, our product candidate. In addition, if we obtain marketing approval for our product candidate, we expect to incur significant commercialization expenses related to sales, marketing, manufacturing and distribution to the extent that such sales, marketing, manufacturing and distribution are not the responsibility of potential collaborators. Furthermore, following the completion of the global offering, we expect to incur additional costs associated with operating as a U.S. public company. 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 would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We expect our existing cash, together with the net proceeds from the global offering, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of product discovery, preclinical studies and clinical trials;
- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of regulatory review of our product candidate;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other product candidates and technologies;

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- the costs of securing manufacturing arrangements for commercial production;
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our product candidate;
- obtaining and maintaining coverage, adequate pricing and adequate reimbursement from third-party payors, including government payors;
- acceptance of arimoclomol, if approved, by patients, the medical community and third-party payors; and
- business interruptions resulting from the COVID-19 pandemic.

Developing product candidates is a time-consuming, expensive and uncertain process that takes many years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidate, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of our product candidate, if approved. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a shareholder. Debt 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.

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

Contractual Obligations & Commitments

The following are our contractual obligations and commitments as of December 31, 2019:

(In thousands)	Less than 1 Year		1 to 3 Years		3 to 5 Years		More than 5 Years		Total	
	\$	DKK	\$	DKK	\$	DKK	\$	DKK	\$	DKK
Lease obligations	504	3,344	1,002	6,647	618	4,102	—	—	2,125	14,093
Borrowings (1)	3,447	22,862	9,080	60,215	682	4,522	—	—	13,209	87,599
Total	3,951	26,206	10,082	66,862	1,300	8,624	—	—	15,334	101,692

- (1) Represents payments to be made pursuant to the Loan Agreement, including principal, interest, a payment of €0.3 million payable at the end of the loan, and the facilitation fee included in the time period Less than 1 Year, as it is payable upon demand from the lender. For additional information, see “–Liquidity and Capital Resources–Sources of Liquidity.”

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The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. The table does not include obligations under agreements that we can cancel without a significant penalty.

We also have certain future contingent commitments under our license and collaboration agreements that may become due for future payments. These milestone payments generally become due and payable only upon the achievement of certain development, clinical, regulatory or commercial milestones. The events triggering such payments or obligations have not yet occurred and as such have not been reflected in the above table. These payments may be significant. See “—Our Licensing Agreements.”

We also enter into contracts in the normal course of business with CROs for clinical trials, preclinical studies, CMOs for manufacturing and other services and products for operating purposes that are cancelable by us. Payments due upon cancellation consisting only of payments for services provided or expenses incurred, including noncancelable obligations of our service providers, up to the date of cancellation are not included in the preceding table as the amount and timing of such payments are not known.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Critical Accounting Policies

Our consolidated financial statements are prepared in accordance with IFRS, as issued by the IASB. A description of our significant accounting policies, including significant accounting estimates and judgements, is provided in Notes 1.3, 1.4, and within the notes to each relevant line item of our audited consolidated financial statements as of December 31, 2019 and 2018, and for the years ended December 31, 2019 and 2018, and within the notes to each relevant line item of our unaudited interim condensed consolidated financial statements as of June 30, 2020, and for the six months ended June 30, 2020 and 2019, each included in this prospectus.

New IFRS Standards Applicable to the Company

On January 1, 2019, we adopted IFRS 16, “Leases,” pursuant to which leases are recognized as a right-of-use asset and a corresponding liability at the adoption date. For the year ended December 31, 2019, we applied the modified retrospective approach, which requires the recognition of the cumulative effect of initially applying IFRS 16 as of January 1, 2019 in accumulated losses.

See note 1.5 to our audited consolidated financial statements beginning on page F-1 of this prospectus for a description of recent accounting pronouncements applicable to our consolidated financial statements.

Qualitative and Quantitative Disclosures about Market Risk

Our activities primarily expose us to the financial risks of changes in foreign currency exchange rates. Increases or decreases in the exchange rate of foreign currencies against the Danish kroner can affect our results and cash position negatively or positively.

Exchange Rate Risk

Most of our financial transactions are made in Danish kroner, U.S. dollars and Euros. As our functional and reporting currency is Danish kroner, we experience exchange rate risk with respect to our holdings and transactions denominated in currencies other than Danish kroner. Our currency exposure to both the U.S. dollar and the Euro is mainly related to cash deposits and contracts denominated in those currencies. In addition, the facilitation fee under the Loan Agreement is accounted for as an embedded derivative and is denominated in Euro.

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Due to the long-standing policy of Denmark's Nationalbank with respect to the €/DKK exchange rate, we believe that there are currently no material transaction exposure or exchange rate risks regarding transactions in Euros. Since the introduction of the Euro in 1999, Denmark has committed to maintaining a central rate of 7.46 DKK to €1. This rate may fluctuate within a +/- 2.25% band. Although there has been some pressure on the Danish kroner, we do not expect the €/DKK exchange rate to move outside of the current limits. However, should Denmark's policy towards the Euro change, the Danish kroner values of our Euro-denominated assets and costs could be materially different compared to what is calculated and reported under the existing Danish policy towards the €/DKK exchange rate.

As of June 30, 2020, we have no material interest rate risk or credit risk exposure.

Implications of Being an Emerging Growth Company

As a company with less than \$1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company," as defined in the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

- a requirement to include only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations disclosure; and
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act.

We may choose to take advantage of some but not all of these reduced burdens, and therefore the information that we provide holders of ordinary shares and ADSs may be different than the information you might receive from other public companies in which you hold equity. In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards applicable to public companies in the United States. As a public company in Denmark, we are unable to take advantage of the extended transition period.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We will cease to be an emerging growth company upon the earliest of the following:

- the last day of the first fiscal year in which our annual revenues were at least \$1.07 billion;
- the last day of the fiscal year following the fifth anniversary of the initial public offering of our ADSs;
- the date on which we have issued more than \$1 billion of non-convertible debt securities over a three-year period; and
- the last day of the fiscal year during which we meet the following conditions: (i) the worldwide market value of our common equity securities held by non-affiliates as of our most recently completed second fiscal quarter is at least \$700 million, (ii) we have been subject to U.S. public company reporting requirements for at least 12 months and (iii) we have filed at least one annual report as a U.S. public company.

Implications of Being a Foreign Private Issuer

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

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

In addition, we will not be required to file annual reports and financial statements with the SEC as promptly as U.S. domestic companies whose securities are registered under the Exchange Act, and are not required to comply with Regulation FD, which restricts the selective disclosure of material information.

Both foreign private issuers and emerging growth companies are also exempt from certain more stringent executive compensation disclosure rules for U.S. public companies under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Even if we no longer qualify as an emerging growth company, so long as we remain a foreign private issuer, we will continue to be exempt from such compensation disclosures.

BUSINESS

Overview

We are a late-stage biopharmaceutical company harnessing the amplification of Heat Shock Proteins, or HSPs, in order to develop and commercialize novel therapeutics for the treatment of neurodegenerative orphan diseases. In September 2020, the U.S Food and Drug Administration, or FDA, accepted our a new drug application, or NDA, for our product candidate, arimoclomol, for Niemann-Pick disease Type C, or NPC, with priority review. In the letter accepting the NDA, the FDA set a target action date of March 17, 2021 under the Prescription Drug User Fee Act, or PDUFA, for completion of its review of our NDA. In the letter, the FDA also notified us that, while conducting its filing review, it has identified potential review issues, without specifying what such issues are, that we may need to address before obtaining FDA approval. We also intend to submit a marketing authorization application, or MAA, to the European Medicines Agency, or EMA, in the second half of 2020. Arimoclomol is also in registrational clinical trials for the treatment of Amyotrophic Lateral Sclerosis, or ALS, and Sporadic Inclusion Body Myositis, or sIBM, and we intend to advance into pivotal-stage clinical development in neurological Gaucher disease. Arimoclomol is an orally- or naso/gastrically-administered small molecule that crosses the blood-brain barrier and is designed to selectively amplify the natural role of endogenous HSPs, which protect against cellular toxicity caused by protein misfolding, aggregation and lysosomal dysfunction. In our Phase 2/3 clinical trial of arimoclomol in NPC, we have observed evidence of slowing of disease progression, supporting our registration effort in the United States and Europe. Results observed in the Phase 2 clinical trials for ALS, sIBM and Gaucher disease demonstrated the potential of arimoclomol to slow the progression of such diseases, forming the basis of our ongoing registrational clinical trials in ALS and sIBM, as well as our intention to advance into pivotal-stage clinical development in neurological Gaucher disease. We also believe that arimoclomol has been well tolerated in clinical trials including more than 500 human subjects for various indications. We are committed to leveraging our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial experience and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases.

Arimoclomol functions by upregulating HSPs, which are molecular chaperones that are critical in the natural cellular response to stress, protein misfolding, aggregation and lysosomal dysfunction. We believe that arimoclomol is the first clinical product candidate to harness this mechanism of action for the treatment of lysosomal storage diseases, or LSDs, and neuromuscular diseases affecting the central nervous system, or CNS, and muscle. Arimoclomol is currently available to NPC patients in the United States through our early access program, or EAP, with nine patients on treatment as of September 18, 2020 and we have established and may in the future establish early access programs or compassionate use programs for same and other indications and in other locations. We are conducting clinical trials for arimoclomol in three additional indications, including a Phase 3 registrational clinical trial in ALS, for which we expect top-line results in the first half of 2021, a Phase 2/3 registrational clinical trial in sIBM, for which we expect top-line results in the first half of 2021, and a Phase 2 clinical trial in Gaucher disease, for which we announced top-line results in June 2020. We believe that each of these indications has a significant unmet medical need today, given the limited availability of effective therapies for NPC, ALS and neurological Gaucher disease and the lack of any approved drugs for sIBM. Both the FDA and the EMA have granted arimoclomol orphan drug designation for NPC, ALS and sIBM. The FDA has also granted arimoclomol fast track designation in NPC, ALS and sIBM, has designated arimoclomol as a breakthrough therapy in NPC and has granted arimoclomol a rare pediatric disease designation in NPC, potentially entitling us to a priority review voucher if arimoclomol is approved in NPC.

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The following table summarizes the indications we are pursuing with arimoclomol, for which we have retained our full, worldwide, exclusive marketing and distribution rights.

Product Candidate	Indication	Stage of Development					Next Anticipated Milestone(s)
		PC	Ph 1	Ph 2	Ph 3	Filed	
Arimoclomol	Niemann-Pick disease Type C ⁽¹⁾	Filed U.S. NDA (priority review)					NDA Target PDUFA Date March 17, 2021 EU Submission H2 2020
	Amyotrophic Lateral Sclerosis (ALS)	Registrational Ph 3					Top-line Phase 3 results H1 2021
	Sporadic Inclusion Body Myositis (sIBM)	Registrational Ph 2/3					Top-line Phase 2/3 results H1 2021
	Neurological Gaucher disease (Type I/III)	Ph 2					

(1) Currently available via an Early Access Program in the US at multiple sites.

■ Lysosomal Storage Diseases ■ Neuromuscular Disorders

Our Product Candidate—Arimoclomol

Our most advanced program is for the treatment of NPC, a LSD. NPC is a rare, genetic and progressive disease that impairs the ability of the body to recycle cholesterol and other types of lipids, resulting in damage to the body's tissues, including the brain. Symptoms of NPC usually occur during mid to late childhood, and include difficulties in swallowing, loss of speech and cognition, motor coordination and ambulation. In more aggressive forms, NPC is frequently fatal by the time patients reach their twenties. We estimate the incidence of NPC to be one in 100,000 live births. Based on these incidence rates, the number of NPC patients in the United States and in Europe is estimated to be approximately 1,800 individuals. Of these, we estimate that approximately 1,100 individuals have been diagnosed, of which approximately 300 are in the United States and approximately 800 are in Europe. However, diagnostic challenges may affect the number of potential patients, and we believe that the availability of treatment options could increase awareness of the disease and assist in identifying more cases. We believe that there is a significant unmet need for new treatments for NPC due to the side effects, limited availability and efficacy of the existing treatment options. In our registrational Phase 2/3 clinical trial for NPC, arimoclomol was observed to be well-tolerated and demonstrated a benefit over placebo and routine clinical care using the 5-domain NPC clinical severity score, or NPCCSS, the key primary endpoint, corresponding to a 63% relative reduction in disease progression ($p=0.0537$). The 5-domain NPCCSS is a disease-specific and validated measure of disease progression refined by us with disease opinion leaders, consisting of the five clinically most relevant domains to patients with NPC, caregivers and physicians. Arimoclomol demonstrated a statistically significant benefit over placebo using the 5-domain NPCCSS score when excluding three patients with double functional null mutations, corresponding to a 77% relative reduction in disease progression ($p=0.0242$); in patients aged ³ 4 years, corresponding to an 80% relative reduction in disease progression ($p=0.0189$); and in patients also receiving miglustat (corresponding to a 101% reduction in disease progression over routine care including miglustat ($p=0.0074$)).

We are also developing arimoclomol for the treatment of ALS. ALS, commonly referred to as Lou Gehrig's disease, is a rapidly progressing neurological disease with the onset of symptoms typically occurring between 40 to 70 years of age, with patient mortality occurring in most patients within three to five years of disease onset. ALS attacks neurons responsible for controlling voluntary muscles, resulting in muscle weakness in limbs, and impacts speaking, chewing, swallowing and breathing, leading to progressive disability and eventually death, typically from respiratory failure and aspiration pneumonia. In addition, up to 50% of ALS patients develop cognitive impairment associated with frontotemporal dementia. According to the ALS Association, the incidence of ALS in the United States is estimated to be two per 100,000 within the general population and prevalence is estimated to be between five and seven cases within a population of 100,000, equating to approximately 20,000 patients in the United States and 30,000 patients in Europe. 5,000 new ALS

patients are diagnosed each year in the United States. ALS affects men to women at a ratio of 3:2. There are currently a limited number of treatments available for ALS, with disease management predominantly focused on treatment of symptoms and supportive care. Riluzole, developed by Sanofi, was the first drug to be approved by the FDA for the treatment of ALS more than 20 years ago, but has been shown to prolong survival by just two to three months. In May 2017, the FDA approved Edaravone, which has been shown to slow functional decline in ALS patients, but is administered through a burdensome intravenous regimen. Non-invasive ventilation has also been shown to support against respiratory failure, improve quality of life, and potentially increase survival by around seven months. We believe there is a significant unmet need for new effective treatments for patients suffering from ALS in order to improve the clinical course of their disease and extend their survival. In a Phase 2 clinical trial of arimoclomol for the treatment of ALS and in a Phase 2/3 clinical trial for the treatment of superoxide dismutase 1, or SOD1, ALS, arimoclomol was observed to be well tolerated, and showed positive trends across clinical endpoints, including a 30% and 28% slowing of disease progression, respectively, as measured by the ALS Functional Rating Scale, or ALSFRS-R, from baseline, when compared to a historical control group. The ALSFRS-R is an instrument for evaluating the functional status of patients with ALS, including respiratory function. Based on these results, we are conducting a Phase 3 registrational trial of arimoclomol for ALS, for which we expect to report top-line results in the first half of 2021.

In addition, we are developing arimoclomol for the treatment of sIBM. sIBM is an acquired, rare and slowly progressive muscle disorder. The onset of symptoms occurs on average after age 50, with up to three of every four cases occurring in men. Many patients with sIBM will suffer loss of fine motor skills such as writing, grooming and the ability to eat unaided, and it is associated with significant morbidity including a propensity to fall, difficulty swallowing and severe disability. Patients with sIBM may also require use of a walking stick as early as five years after symptom onset and become wheelchair dependent and severely disabled within 10 to 15 years. In a recent systematic review, the prevalence of sIBM has been estimated to be 4.6 per 100,000 people, equating to an estimated 40,000 individuals living with sIBM in the United States and Europe combined. sIBM is distinct in its presentation, most commonly affecting muscles of the thigh and forearm, and immunosuppressive treatments have not been shown to be effective, despite evidence of inflammatory pathology. There is a prominent degenerative element to the disease and muscle biopsies reveal the presence of myotoxic protein aggregates (inclusions). There are currently no effective or approved treatments for sIBM. In a Phase 2 clinical trial of arimoclomol for the treatment of sIBM, arimoclomol was observed to be well tolerated and demonstrated a slowing in the rate of disease progression as measured on the Inclusion Body Myositis functional rating scale, or IBMFRS, with a 60% reduction in progression at four months when compared to placebo. This was shown to persist for several months beyond the 4 month treatment period (72.8% reduction at 8-months, $p=0.055$). Typically, sIBM patients progress by losing up to 2.0 to 2.5 points on the IBMFRS score per eight months. Based on these results, we are conducting a Phase 2/3 registrational trial in sIBM, for which we expect top-line results in the first half of 2021.

We are also developing arimoclomol for the treatment of neurological manifestations of Gaucher disease. Gaucher disease is a rare, inherited metabolic disorder causing certain sugar containing fats to abnormally accumulate in the lysosomes of cells, especially within cells of the blood system and nerve cells, thereby affecting organs such as the brain, bone marrow, spleen and liver. The typical systemic symptoms of Gaucher disease, which can appear at any age, include an abnormally enlarged liver and/or spleen and low levels of circulating red blood cells and platelets. These systemic symptoms are generally treated by existing enzyme replacement therapy, or ERT, and substrate reduction therapy, or SRT. The neurological symptoms, although heterogeneous, may include muscle rigidity, loss of movement, seizures, cognitive impairment and vision problems and are insufficiently treated by these therapies, given their limited ability to cross the blood-brain barrier. Gaucher disease is the most common LSD, with an estimated incidence of one in 50,000, and affects up to an estimated 15,000 individuals in the United States and Europe combined. Gaucher disease has three subtypes, which are, in part, distinguished by the presence or absence of neurological symptoms. Type 1 Gaucher disease is the most common form of the disease, can occur at any age and initially do not present with neurological symptoms. It is now estimated that up to 30% of patients diagnosed with Gaucher Type 1 develop neurological symptoms later in life, including 5% to 7% showing Parkinsonism symptoms. We believe this is due

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to individuals with Gaucher Type 1 living much longer as a result of availability of ERT and SRT therapy. Patients with Gaucher disease Type 2 or Type 3 present with acute neurological symptoms (Type 2) or develop chronic neurological disease (Type 3). Results of preclinical studies demonstrated an increase in HSP70, a key member of the HSP family, and refolding, maturation and correct intracellular localization of GCase, an enzyme responsible for breaking down certain lipids and for which reduced activity causes Gaucher disease. Based on these results, we initiated a randomized, double-blinded, dose-ranging Phase 2 clinical trial of arimoclomol for the treatment of neurological Gaucher disease in June 2018, which completed enrollment in August 2019. We reported top-line Phase 2 results in June 2020, in which arimoclomol was observed to be well-tolerated and demonstrated a relative reduction in serum chitotriosidase activity from baseline to six months, the primary endpoint, across all dosages compared to placebo ranging from -12% to -29%, although statistical significance was not achieved ($p=0.4$). However, we observed a statistically significant dose-dependent reduction in liver size ranging from -15% to -20% relative to placebo (dose trend analysis $p<0.05$). Based on these results, we intend to advance into pivotal-stage clinical development for arimoclomol in neurological Gaucher disease.

If we are successful in our initial indications of NPC, ALS, sIBM and neurological Gaucher disease, we estimate that arimoclomol could benefit up to approximately 100,000 patients in the United States and Europe. However, based on the significant data we have generated to date, we believe that arimoclomol's unique mechanism of action has potential therapeutic application across a broader range of lysosomal and neurodegenerative orphan diseases, several of which address significantly larger patient populations and target markets than those we are currently pursuing in our clinical development programs. Beyond the registrational clinical trials in ALS and sIBM, we are undertaking preclinical studies to explore and inform us on the opportunity to address additional indications, including GCase-deficient Parkinson's disease among others. If we are also successful in the GCase-deficient Parkinson's disease indication in addition to the other 4 initial indications, we estimate that arimoclomol could benefit up to approximately 500,000 patients in the United States and Europe.

We are currently building a highly specialized commercial sales organization in anticipation of a potential launch of arimoclomol for the treatment of NPC in the United States and Europe. Our plans include having a commercial infrastructure that is supported by high-touch patient support initiatives and established relationships with the concentrated number of treatment centers that address NPC in advance of a potential launch in the United States. We have had significant and positive engagement with payors, physicians and patient advocacy organizations. We have already successfully established our EAP for NPC patients, which continues to provide us with significant insights to enhance our broader commercial readiness plans. In NPC, there are approximately 25 to 50 highly specialized centers in the United States and Europe that cover the vast majority of patients, and we believe this market can be effectively addressed with our own targeted commercial field force of approximately 20 to 30 representatives. If arimoclomol is approved for additional diseases, we plan to leverage our core orphan disease commercial infrastructure and expertise to efficiently address the relevant patient populations. We are also actively engaging with key ALS, sIBM and Gaucher disease patient advocacy groups.

We were founded in 2009 based on a scientific discovery published in *Nature* on the function of HSPs co-authored by Dr. Thomas Kirkegaard Jensen, who serves as our Chief Scientific Officer. We are led by our Chief Executive Officer, Kim Stratton, our Chief Financial Officer, Anders Vadsholt, our Chief Medical Officer, Dr. Thomas Blaettler, and Dr. Jensen. Each member of our management team has extensive experience in the global biopharmaceutical industry. Our management team's experience in clinical drug development, manufacture and commercialization, particularly in the rare disease drug space, provide us with valuable insights that we believe will help us maximize the value of arimoclomol and our foundational expertise in HSPs. Our management team has a highly successful track record of launching and commercializing products in more than fifteen rare diseases across the United States and international markets at leading global pharmaceutical firms such as Shire Pharmaceuticals, Novartis, Roche and Bristol-Myers Squibb. We are supported by leading global life sciences investors, including Consonance Capital, Coöperative Aescap Ventures, Sunstone Life Science Ventures and, through a joint investment vehicle Orpha Pooling N.V., Life Science Partners and the ALS Investment Fund. Our board of directors also includes industry experts with experience at companies focused on

rare diseases, including Genzyme and Swedish Orphan Biovitrum. We completed the initial public offering of our ordinary shares in Denmark in November 2017. Our ordinary shares currently trade on Nasdaq Copenhagen under the symbol “ORPHA.” Our initial public offering in Denmark raised gross proceeds of DKK 600 million (\$90 million). In February 2020, we also raised gross proceeds of DKK 745 million (\$112 million) in a directed issue and private placement in Europe and the United States.

Our Competitive Strengths

We believe we have the potential to transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases. Our key competitive strengths include:

- *Deep scientific expertise and discovery capabilities in the field of Heat Shock Proteins and lysosomal biology:* Orphazyme was founded on pioneering discoveries made in the biology of HSPs, which are the body’s natural response to cellular stress, and their role in lysosomal function. We are the first to successfully apply this foundational expertise to pursue registrational development of novel therapeutic candidates for the treatment of lysosomal and neurodegenerative orphan diseases.
- *Our product candidate, arimoclomol, which has exhibited compelling results in clinical trials of neurodegenerative orphan diseases:* In clinical trials to date, arimoclomol has exhibited compelling results on slowing of disease progression in NPC and results observed in our clinical trials in ALS, sIBM and Gaucher disease also demonstrated the potential of arimoclomol to slow the progression of such diseases. We also believe that arimoclomol has been well tolerated in clinical trials including more than 500 human subjects for various indications.
- *Potential near-term approval of arimoclomol in our first targeted ultra-orphan indication of NPC:* If approved, arimoclomol could be the first product approved by the FDA for the treatment of NPC. In September 2020, the FDA accepted our NDA for arimoclomol for the treatment of NPC with priority review and we plan to submit an MAA in Europe in the second half of 2020.
- *Arimoclomol’s pipeline-in-a-product potential, with registrational clinical trials ongoing in two additional orphan indications and our intention to advance into pivotal-stage clinical development in a third:* We believe arimoclomol’s novel mechanism of action has potential in a range of increasingly more widespread orphan diseases. Registrational clinical trials are ongoing in ALS and sIBM and we reported positive data from a Phase 2 clinical trial in Gaucher disease in June 2020, which may support the ability of arimoclomol to address a larger group of LSDs. If arimoclomol is approved for the treatment of NPC, ALS, sIBM and neurological Gaucher disease, we estimate the total addressable patient pool would be approximately 100,000 patients in the United States and Europe.
- *A highly experienced, rare disease focused management team:* Our organization is built around a scientific, development, medical and commercial team with extensive expertise in the pharmaceutical and biotechnology industry and rare diseases. This includes experience in patient advocacy, education, diagnosis, EAPs, engaging with specialty pharmacies and the supply chain to support patient access and adherence.
- *Multiple regulatory designations that support the importance of arimoclomol and potentially provide accelerated approval pathways:* Arimoclomol has been granted orphan drug designation in the United States and Europe for NPC, ALS and sIBM. Arimoclomol has also been granted fast track designation by FDA for NPC, ALS and sIBM and has received breakthrough therapy designation for NPC. Furthermore, arimoclomol has received rare pediatric disease designation from FDA, potentially entitling the sponsor to a priority review voucher should the product be approved in NPC.

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- *Exclusive worldwide marketing and distribution rights, supported by intellectual property protections and additional regulatory exclusivity protections:* We have retained our exclusive worldwide marketing and distribution rights for arimoclomol. Furthermore, our patent portfolio provides us with protection for the treatment of NPC and Gaucher disease until 2029, with possible extensions to 2032 in the United States and 2034 in the European Union based on method of use patents, and for the treatment of ALS until 2024, as well as orphan drug exclusivity, if approved, for seven years in the United States and ten years in the European Union for NPC, ALS and sIBM.

Our Strategy

Our goal is to leverage our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial experience and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases. The key pillars of our business strategy include:

Secure Regulatory Approvals in the United States and European Union for Arimoclomol in NPC

We believe arimoclomol has the potential to become the first FDA-approved therapy for the treatment of NPC. Based on the data observed in the registrational Phase 2/3 clinical trial, the FDA accepted our NDA for arimoclomol in NPC in September 2020 with priority review, and we expect to submit an MAA in Europe in the second half of 2020. Arimoclomol is available in the United States through our EAP, which provides access to arimoclomol to NPC patients before the drug is approved by the FDA and we are exploring similar initiatives for early access in Europe.

Maximize the Commercial Potential of Arimoclomol in NPC and Beyond

We are building an efficient, highly specialized commercial organization in anticipation of a potential launch of arimoclomol for the treatment of NPC in the United States and Europe. Our management's expertise in rare disease drug commercialization has informed our commercial readiness plans in the United States and Europe, where we intend to deploy a targeted field force of 20 to 30 representatives, alongside various high-touch patient support initiatives and make use of our already established relationships with the 25 to 50 specialized treatment centers that address NPC. We also plan to build on the significant engagement we have fostered with payors, physicians and the patient advocacy community. We are harnessing many of these efforts in our EAP for NPC patients in the United States while also using this program to further inform our commercial strategy. If arimoclomol is approved for additional diseases, we plan to leverage our rare disease commercial infrastructure and expertise to efficiently address those patient populations. We may also opportunistically seek strategic collaborations in disease areas or geographies that we believe could benefit from the resources of either larger biopharmaceutical companies or those specialized in a particular area of relevance.

Complete Registrational Studies and Obtain Regulatory Approval of Arimoclomol for ALS and sIBM and Advance into Pivotal-Stage Clinical Development in Gaucher Disease

Based on the compelling results from our Phase 2/3 clinical trial in NPC and investigator and CytRx Corporation, or CytRx, sponsored clinical trials, we believe there is significant potential for arimoclomol in the treatment of other protein misfolding and aggregation disorders. Arimoclomol has demonstrated clinical proof-of-concept in ALS and sIBM, with Phase 2 clinical trials in both indications having shown trends in pre-defined efficacy endpoints. We are currently conducting registrational clinical trials of arimoclomol for ALS and sIBM, and we expect top-line results in both indications in the first half of 2021. We intend to advance arimoclomol into pivotal-stage clinical development in neurological Gaucher disease following compelling results reported in our Phase 2 clinical trial in June 2020, in which we achieved clinical proof-of-concept.

Actively Expand and Advance our Pipeline, Including Developing Arimoclomol for Additional Indications and Discovering Additional NMEs

Based on our expertise in HSPs' mechanism and lysosomal biology, we believe arimoclomol has the potential to be an effective treatment for additional protein misfolding and aggregation diseases, as well as diseases characterized by lysosomal dysfunction. Furthermore, we are actively evaluating opportunities in disorders such as GCase-deficient Parkinson's disease and other LSDs. We are also actively developing a proprietary suite of next generation HSP amplifiers and lysosome biology-targeting compounds and intend to select protein misfolding diseases for these new molecular entities, or NMEs, based on genetic and mechanistic insights. For our new indications and molecule development, we plan to continue to closely collaborate with academic experts and patient organizations, and we intend to leverage our learnings to inform a selection of additional indications involving related biological mechanisms.

Heat Shock Proteins and the Heat Shock Response

We are pioneering the use of a natural cellular defense system, the heat shock response, or Heat Shock Protein response, for the treatment of neurodegenerative orphan diseases, based around our investigational drug arimoclomol.

HSPs are a family of molecular chaperone proteins present in all cells throughout the body, characterized by their cell protective properties and whose levels are amplified by cells in response to a wide variety of stressful conditions, including thermal, oxidative, mechanical, chemical and pathophysiological stresses. This amplification of HSP production in times of stress is described as the Heat Shock Response. The HSPs form a natural cellular defense system that helps other proteins work correctly and guards against the toxicity arising from misfolded proteins, protein aggregation and dysfunctional cellular recycling systems (lysosomes), essentially acting as cellular lifeguards.

In particular, HSPs promote the survival of stressed cells by re-folding misfolded proteins into their correct conformation, or by directing terminally misfolded proteins to be broken down. They also protect cells by stabilizing lysosomes and thereby allow cells to clear away waste, prevent lysosome-associated cell death and return to their healthy status.

There are several different types of HSPs which work in conjunction. A key member of the HSP family is HSP70, which has been shown to protect against the formation of protein aggregates that are the defining characteristic of a number of neurodegenerative diseases including ALS and sIBM. HSP70 has also been identified to be a co-factor for lysosomal sphingolipid breakdown: a necessary step in the metabolism of stored lipids, which otherwise cause toxicity if accumulated in the lysosome and whose deficiencies give rise a group of lysosomal storage disorders known as the sphingolipidoses.

When protein misfolding occurs gradually as a consequence of an inherited mutation or as part of a disease progression, this can lead to a slow but steady aggregation of misfolded proteins occurring under the threshold for the cells to activate the production of HSPs. This sub-threshold accumulation and aggregation can lead to cellular dysfunction and eventually, in time, cell death, leading to loss of brain, nerve, muscle and other affected cells. These events can contribute to a wide range of diseases, including ALS, sIBM, GCase-deficient Parkinson's disease and others.

Protein Misfolding, Aggregation and Lysosomal Dysfunction

If a protein does not fold properly or if it gets mislocalized in the wrong part of the cell, it can clump together with other proteins, creating accumulations or aggregates. Both the mislocalization and formation of aggregates can cause cell stress and toxicity, which are major components of the pathology in many neurodegenerative and other progressive diseases. HSP70 and other HSPs chaperone nascent proteins and

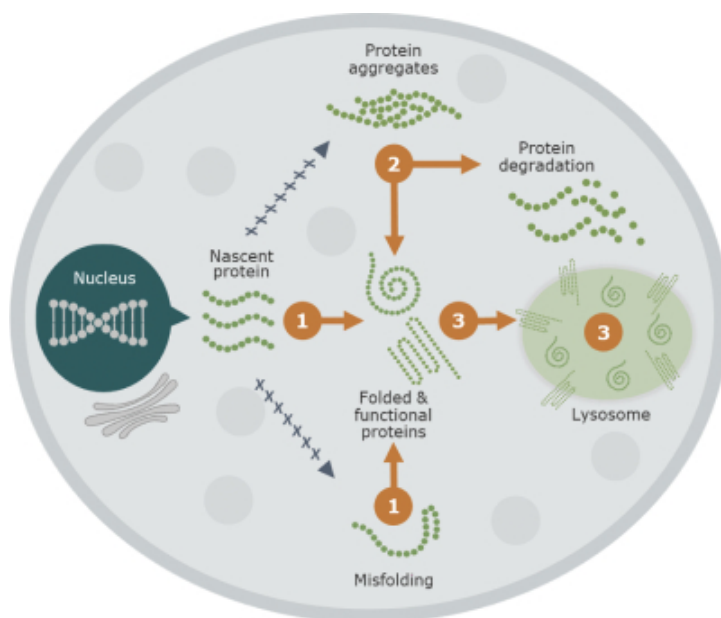
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misfolded proteins, ensuring their correct folding, function and cellular localization. HSP70 is also involved in dissolving aggregates and is part of a system that guides unsalvageable proteins to be degraded by the cells' recycling systems.

Lysosomes are essential compartments of cells and contain enzymes which act like molecular scissors to digest cellular waste products for recycling. If, as a result of a genetic mutation, one of these digestive enzymes does not function properly, the waste product will accumulate inside the lysosome and eventually become toxic to cells. The digestive enzymes are proteins, and their dysfunction can be the result of a failure to fold into the correct shape (misfolding) or because they are incomplete. In some cases, cells do not produce a specific digestive enzyme at all. The extent of the digestive enzyme dysfunction depends on the genetic mutations. These mutations are inherited from both parents who are carriers of the mutation. HSP70 promote lysosomal function by facilitating the function of these lysosomal digestive enzymes both through its effect on the enzymes' folding, as well as acting directly in the lysosomes, thereby increasing lipid metabolism and removal, which leads to stabilization of lysosomal membranes and prevention of cell death.

As exemplified in the figure below, the way HSPs target protein misfolding, aggregation and lysosomal function can be summarized as follows:

1. HSPs chaperone nascent proteins and misfolded proteins, ensuring their correct folding and function;
2. HSPs can dissolve protein aggregates, potentially restore folded and functional proteins, or ensure their removal by facilitating degradation; and
3. HSPs promote lysosomal function by chaperoning lysosomal proteins to the lysosome, thereby increasing lipid metabolism and removal. In addition, intra-lysosomal HSP70 also enhances lipid metabolism thereby stabilizing lysosomal membranes and preventing cell death.



Our research focuses on the beneficial effects of HSP70. In NPC and Gaucher disease, as well as several other LSDs, we aim to target both protein misfolding and lysosomal function. In ALS and sIBM our goal is to

target protein mislocalization, misfolding and aggregation. It has also been our ambition since our foundation that this beneficial impact on lysosomal biology might be translated to a treatment that could benefit many LSDs. We furthermore use HSP70 as a key parameter to measure activity of our drug candidates in both preclinical studies and clinical trials.

Our Product Candidate—Arimoclomol

Summary of Arimoclomol

Arimoclomol is an orally or naso/gastrically-administered small molecule that crosses the blood-brain-barrier and is designed to selectively amplify the natural role of endogenous HSPs, which protect against cellular toxicity caused by protein misfolding, aggregation and lysosomal dysfunction. In our Phase 2/3 clinical trial in NPC, we have observed evidence of slowing of disease progression, which supports our registration effort in the United States and Europe. Results observed in the Phase 2 clinical trials for ALS, sIBM and Gaucher disease demonstrated the potential of arimoclomol to slow the progression of such diseases, forming the basis of our ongoing registrational clinical trials in ALS and sIBM, as well as our intention to advance into pivotal-stage clinical development in neurological Gaucher disease. We also believe that arimoclomol has been well tolerated in clinical trials including more than 500 human subjects for various indications. We are committed to leveraging our deep scientific expertise in the field of HSPs and lysosomal biology, the unique benefits of arimoclomol and our commercial expertise and infrastructure to dramatically transform the lives of underserved individuals living with devastating neurodegenerative orphan diseases.

Arimoclomol functions by upregulating HSPs, which are molecular chaperones that are critical in the natural cellular response to stress, protein misfolding, aggregation and lysosomal dysfunction. We believe that arimoclomol is the first clinical product candidate to harness this mechanism of action targeting lysosomal storage diseases and neuromuscular diseases affecting the CNS and muscle. The FDA accepted our NDA for arimoclomol in September 2020 for the treatment of NPC with priority review. The FDA has set a target action date of March 17, 2021 under the PDUFA for completion of its review of our NDA. We also intend to submit an MAA, to the EMA in the second half of 2020. Arimoclomol is already available to NPC patients in the United States through our EAP, with nine patients on treatment as of September 18, 2020 and we have established and may in the future establish early access programs or compassionate use programs for same and other indications and in other locations. We are also conducting additional clinical trials for arimoclomol including a Phase 3 registrational clinical trial for ALS, for which we expect top-line results in the first half of 2021, a Phase 2/3 registrational clinical trial in sIBM, for which we expect top-line results in the first half of 2021, and a Phase 2 clinical trial in Gaucher disease, for which we announced top-line results in June 2020. We believe that each of these indications has a significant unmet medical need today, given the limited availability of effective therapies for NPC, ALS and neurological Gaucher disease and the lack of any approved drugs for sIBM. Both the FDA and the EMA have granted arimoclomol orphan drug designation for NPC, ALS and sIBM. The FDA has also granted arimoclomol fast track designation for NPC, ALS and sIBM, has designated arimoclomol as a breakthrough therapy for NPC and has granted arimoclomol a rare pediatric disease designation in NPC, potentially entitling us to a priority review voucher if arimoclomol is approved in NPC.

Arimoclomol Mechanism of Action

The production of HSPs is regulated by a transcription factor, heat shock factor 1, or HSF1. A transcription factor is a protein that regulates production of other proteins in the cell. Activation of HSF1 starts the production of the HSP70 chaperone along with other HSP-chaperones. Under normal cellular conditions, HSF1 is inactive. However, the transcription factor can be activated by an initial cellular stress, such as protein misfolding, and become fully activated under a sustained stress signal.

Arimoclomol has been shown to amplify and prolong the activated, HSP-producing state of HSF1. This is believed to lead to an increase in the production of cell protective HSPs, but only in physiologically stressed cells.

This increase in the production of naturally occurring HSPs inside the cells, which reduce protein misfolding and aggregation and improve lysosomal function (the cells' recycling system), selectively targets cells that are under stress. Accordingly, it is believed that increasing production of HSPs enhances the natural biological mechanisms that reduce protein misfolding and aggregation and improve lysosomal function.

Our Program for the Treatment of Lysosomal Storage Diseases

LSDs are inherited metabolic disorders in which enzyme and protein deficiencies result in an accumulation of toxic materials in the lysosomes, the cells' recycling centers. This leads to lysosomal dysfunction and cell death and consequently organ dysfunction. The enzyme and protein deficiencies are often caused by genetic mutations leading to misfolding and degradation of the enzymes. Lysosomes are membrane-bound compartments located in the body's cells, used to break down fats, proteins and other large molecules into their respective building blocks. Loss of lysosomal enzyme activity due to enzyme misfolding and dysfunction prohibits the lysosomes from performing their normal function and results in accumulation of metabolites in the lysosomes, which is why these diseases are referred to as LSDs.

LSDs include more than 50 different diseases, that may affect different parts of the body, including the brain, CNS, spleen, liver, skeleton, skin and heart.

The two LSDs that we are initially focused on are NPC and neurological Gaucher disease.

Arimoclomol for the Treatment of Niemann-Pick Disease Type-C

Our most advanced indication with arimoclomol is for the treatment of NPC. In January 2019, we reported results from a Phase 2/3 clinical trial of arimoclomol in NPC and we reported additional results from the open-label extension clinical trial in January 2020. In the trial, including the extension, we observed that arimoclomol was well-tolerated and demonstrated evidence of slowing the disease progression in NPC over two years. Based on the data from our Phase 2/3 clinical trial, the FDA accepted our NDA in the United States in September of 2020 with priority review and we plan to submit an MAA in the EMA in the second half of 2020 for arimoclomol as a treatment for NPC. If approved, we intend to launch arimoclomol for NPC in the United States and Europe.

Overview of NPC

NPC is a rare, genetic and progressive disease that impairs the ability of the body to recycle cholesterol and other types of lipids, resulting in damage to the body's tissues, including the brain. The symptoms upon onset of NPC vary from fatality during the first months after birth to a progressive disorder not diagnosed until adulthood. The disease affects the brain as well as various internal organs. Symptoms of NPC usually occur during mid to late childhood, including difficulties in swallowing, loss of speech and cognition, motor coordination and ambulation. In more aggressive forms, NPC is frequently fatal by the time patients reach their twenties. During this period, affected individuals may also develop impairment of intellectual ability, psychiatric disturbances and progressive loss of memory. Symptoms include enlargement of the liver and/or spleen and lung diseases, epileptic seizures and dystonia. Systemic symptoms of NPC are more common in infancy or childhood and the rate of progression is usually much slower in individuals with onset of symptoms during adulthood. In more aggressive forms, NPC is frequently fatal by the time patients reach their twenties. However, approximately half of NPC patients are adults with a less aggressive form of the disease that progresses more slowly, and is frequently initially misdiagnosed, as these patients are more likely to present with dementia, psychiatric symptoms and other symptoms.

NPC is caused by mutations in one of two genes, NPC1 or NPC2, which prevent cells from properly processing waste lipids and lead to an accumulation of lipids in the lysosomes, resulting in cell toxicity and loss of cell function. In the CNS, it results in progressive motor and brain impairment. Approximately 95% of people with the disease have mutations in NPC1. Genetic diseases are determined by the combination of the pair of genes for a particular trait received from the father and the mother. NPC is an autosomal recessive disorder, *i.e.*

two copies of an abnormal gene must be present in order for the disease or trait to develop. Although uncertainty exists about the function of the NPC1 and NPC2 protein products, they are known to be involved in the trafficking (transportation) of large molecules inside human cells. Hence, a mutated gene may lead to insufficient protein production and, as a consequence, an abnormal accumulation, *e.g.* cholesterol and/or other fatty materials and sugars in the organs most commonly affected, such as the liver, spleen and brain.

Many cases of NPC go misdiagnosed or undiagnosed. NPC is often initially misdiagnosed as a learning disability, mild retardation, and delayed development of fine motor skills and it is common to spend several years seeking a diagnosis before NPC is identified. The diagnosis of NPC is made upon the characteristic symptoms, as described above, obtained from clinical evaluations and tests to evaluate a protein's function or the presence of accumulated byproducts (biochemical tests) and to evaluate if the NPC1 or NPC2 gene is mutated (gene sequencing). However, physicians' limited experience with NPC often results in delayed diagnosis. According to Aptis Partners, an estimated 40-70% of all NPC patients are diagnosed depending on the country. We estimate the incidence of NPC to be one in 100,000 live births. Based on these incidence rates, the number of NPC patients in the United States and in Europe is estimated to be approximately 1,800 individuals. Of these, we estimate that approximately 1,100 individuals have been diagnosed, of which approximately 300 are in the United States and approximately 800 are in Europe. However, diagnostic challenges may affect the number of potential patients, and we believe that the availability of treatment options could increase awareness of the disease and assist in identifying more cases.

Treatment Options for NPC and Unmet Need

The majority of current treatment options are directed towards the specific symptoms apparent in each individual. These include, for example, referral to a therapist to optimize the swallowing function, prescription of anti-seizure medications to prevent seizures and prescription of melatonin to treat insomnia and other sleep problems caused by the disease, and may require the coordinated efforts of a team of specialists.

Zavesca (miglustat), which was originally developed by Actelion Pharmaceuticals and is now owned by Johnson & Johnson and is also now available as a generic product in several countries, is currently the only approved treatment for NPC. It is approved only in Europe, Canada, Australia, New Zealand and several countries in Asia and in South America as Zavesca and in Japan as Brazaves. In Europe, miglustat is indicated for the treatment of progressive neurological manifestations in adult patients and pediatric patients with NPC disease. The FDA declined to approve miglustat for NPC in 2010 and requested more data be provided. A range of side effects are known to be associated with miglustat, including weight loss, decreased appetite, diarrhea, nausea and thrombocytopenia. While miglustat has not been approved by the FDA for the treatment of NPC, it has been approved by the FDA for the treatment of Gaucher Type I disease. In addition, studies are currently being performed to test the safety and efficacy of other treatment options, which are discussed in more detail below under “—Competition.”

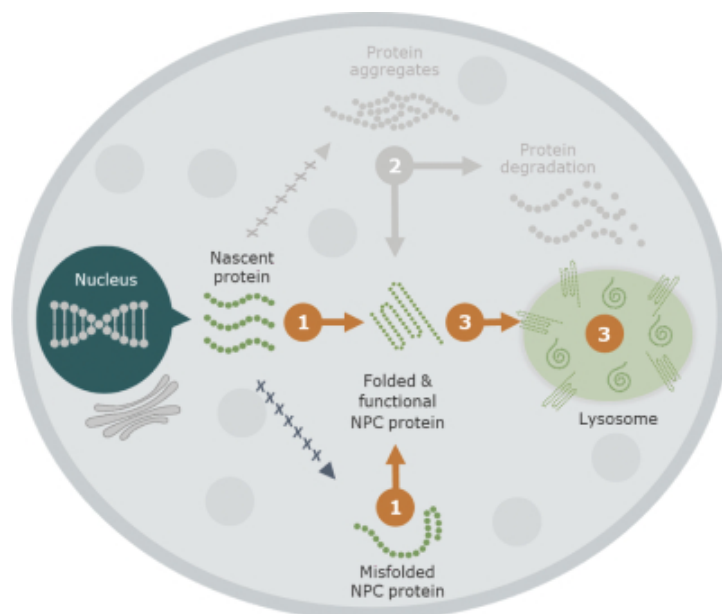
Due to the limited availability, efficacy and side effects of existing treatment options, we believe that a significant unmet need for treatment of NPC continues to exist.

Our Solution—Arimoclomol for NPC

To date in our clinical trials, we have observed that arimoclomol amplifies and sustains levels of HSP70 which, as shown in the figure below:

- Prevents and corrects NPC protein misfolding, specifically improving NPC1 folding and maturation across genotypes (as indicated by (1) in the figure below); and
- Promotes lysosomal function by chaperoning NPC protein to the lysosome, thereby increasing lipid metabolism and removal. In addition, intra-lysosomal HSP70 also enhances lipid metabolism

thereby stabilizing lysosomal membranes and preventing cell death (as indicated by (3) in the figure below).



Clinical Trials of Arimoclomol for the Treatment of NPC

We initiated a Phase 2/3, randomized placebo-controlled clinical trial in July 2016, after receiving regulatory advice from the EMA and the FDA. The aim of the Phase 2/3 clinical trial was to investigate the safety and efficacy of arimoclomol. The multi-center trial completed enrollment in May 2017, with 50 patients recruited at sites across Europe and the United States, and was completed in the second half of 2018. In January 2019, we announced clinical trial results of the Phase 2/3 clinical trial of arimoclomol in NPC and, in November 2019, we received breakthrough therapy designation for arimoclomol in NPC from the FDA.

Trial design. A total of 50 patients were enrolled with patients randomized 2:1 to arimoclomol and placebo (34 patients in the arimoclomol group and 16 patients in the placebo group), respectively, and assessed for a total of 12 months of randomized treatment, followed by open-label treatment of up to 48 months. The purpose of the clinical trial was to assess the efficacy and safety of arimoclomol citrate 200 mg, weight adjusted, three times-a-day when administered in addition to patient's current prescribed routine clinical care, which included miglustat for 39 of the patients. Patients included in the trial were: aged 2–18 years, had a minimum 1 neurological symptom, had the ability to walk with assistance and, if on miglustat, were stable on treatment for at least six months. Patients who participated in other trials, had epilepsy or liver/renal insufficiency were excluded from the clinical trial.

The primary endpoint was disease severity as measured by the 5-domain NPCCSS. The 5-domain NPCCSS is a disease-specific and validated measure of disease progression refined by us with disease opinion leaders, consisting of the five clinically most relevant domains to patients with NPC, caregivers and physicians. The score ranges from 0 – 25, a higher score corresponds to more severe clinical impairment. A change of 1 point or greater on the scale has been assessed to be a clinically meaningful change based on a survey with NPC clinicians, individuals with NPC and caregivers. The overall estimated mean 5-domain NPCCSS score at baseline was 11.2 (SD=6.8). The mean baseline 5-domain NPCCSS score was higher in the group of patients randomized to arimoclomol (n=34; mean 12.1 (SD=6.9)) than the placebo group (n=16; mean 9.4 (SD=6.4)).

5 domain NPC-CSS

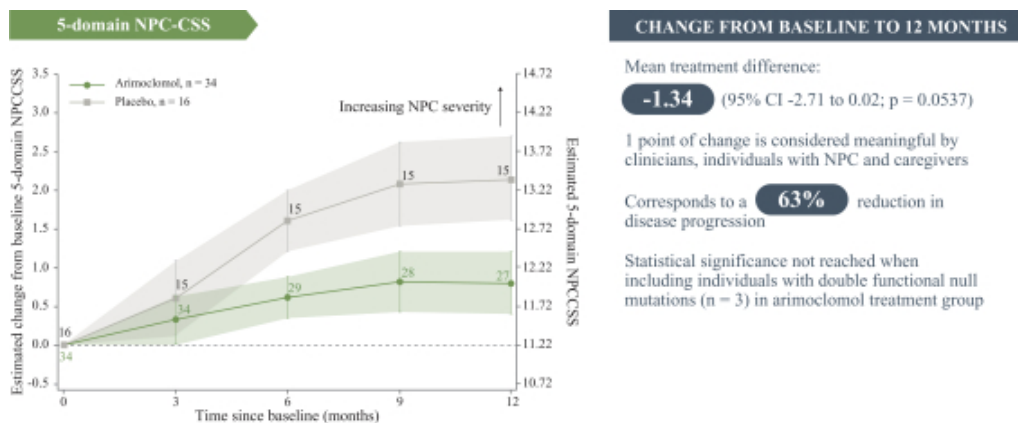
Score	0	1	2	3	4	5
Domain						
1 Ambulation	Normal	Clumsy, bangs into things	Ataxic, gait wider, poor balance		Assisted ambulation - only walk short distance indoor	Wheelchair dependent
2 Fine motor skills	Normal	Slight dysfunction but able to handle cutlery	Mild dystonia Require little assistance, able to feed without help		Limited skill, unable to use pencil or eat independently	Unable to use hands. Assistance needed for all activities
3 Swallow	Normal	Cough while eating	Intermittent problems with drink or food	Constant and intermittent feeding problem	Constant feeding problems or use of tube	Dependent feeding by tube
4 Cognition	Normal	Mild learning delay, still in normal class		Moderate learning delay - need special support in school and kindergarten	Severe delay - constant supervision, not able to learn new skills	Loss of cognitive function Unable to understand day-to-day events
5 Speech	Normal	Mild slurring / slower speech	Severe dysarthria Very slow, difficult to understand	Non-verbal communication, Uses simple signs / pictures		Absence of communication

In agreement with the FDA, treatment response defined as no change or improved on the Clinical Global Impression of Improvement scale, or CGI-I, was included as a co-primary endpoint after the clinical trial had already been initiated.

Efficacy results. In January 2019, we announced clinical trial results of our Phase 2/3 clinical trial of arimoclomol in NPC. As shown in the figure below, a benefit of arimoclomol over placebo was established on the 5-domain NPCCSS score at 12-months, the primary endpoint, corresponding to a 63% relative reduction in disease progression (mean treatment difference of -1.34, 95% CI: -2.71 to 0.02; p=0.0537).

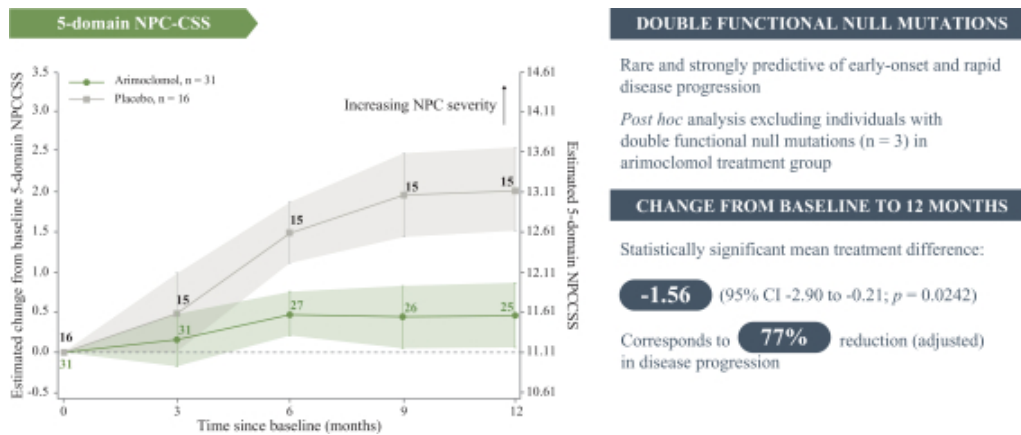
A result is considered to be statistically significant when the probability of the result occurring by random chance, rather than from the efficacy of the treatment, is sufficiently low. The conventional method for determining the statistical significance of a result is known as the “p-value,” which represents the probability that random chance caused the result (e.g., a p=0.01 means that there is a 1% probability that the difference between the control group and the treatment group is purely due to random chance). Generally, a p-value less than 0.05 is considered statistically significant.

5-domain NPCCSS (P=0.0537), corresponding to a 63% relative reduction in disease progression



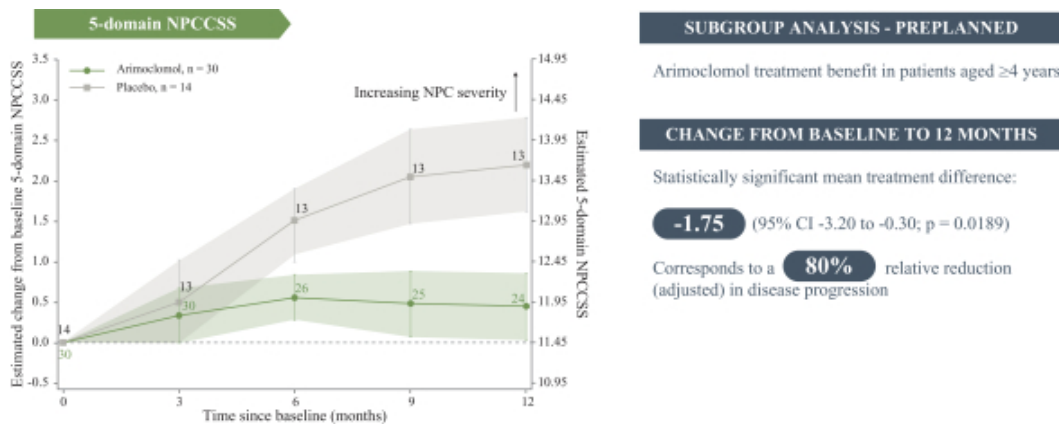
In agreement with the FDA, a post-hoc analysis was conducted to exclude three patients with double functional null mutations (do not express NPC protein and predictive of early-onset, rapid disease progression). All excluded patients had been randomized to the arimoclomol arm. After this exclusion, the results showed a statistically significant benefit of arimoclomol over placebo on the 5-domain NPCCSS score, corresponding to a 77% relative reduction in disease progression (mean treatment difference of -1.56: 95% CI -2.90 to -0.21, $p=0.0242$), as shown in the figure below.

5-domain NPCCSS (P=0.0242), corresponding to a 77% relative reduction in disease progression, when excluding patients with double functional null mutations

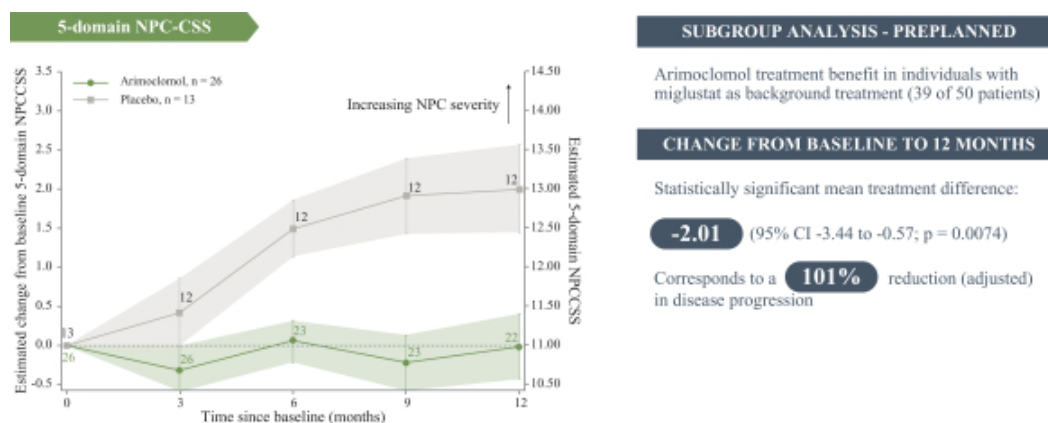


Two preplanned subgroup analyses were also conducted which also showed a statistically significant benefit of arimoclomol over placebo on the 5-domain NPCCSS score: patients aged ≥ 4 years, corresponding to an 80% relative reduction in disease progression (mean treatment difference of -1.75: 95% CI -3.20, -0.30; $p=0.0189$) and in patients receiving miglustat (corresponding to a 101% reduction in disease progression over routine care + miglustat; treatment difference of -2.01, 95% CI -3.44, -0.57; $p=0.0074$).

5-domain NPCCSS (P=0.0189), corresponding to an 80% relative reduction in disease progression, in patients aged ≥ 4 years



5-domain NPCCSS (P=0.0074), corresponding to a 101% relative reduction in disease progression, in patients receiving miglustat



Because the FDA requested we add CGI-I as a co-primary endpoint only after the clinical trial had already been initiated, only eight patients had a formal baseline assessment for CGI-I – for the remaining patients such data had to be reconstructed afterwards. A responder rate of more than 50% in CGI-I in the placebo control group impeded the ability to show an overall effect on this endpoint and therefore was not statistically significant. However, when considering patients who severely progressed during the clinical trial based on clinician assessment, only 10.7% of the arimoclochol-treated patients got ‘much worse’ or ‘very much worse’ compared to 26.7% in the placebo control group.

Several exploratory biomarkers were measured during the clinical trial, demonstrating a clear biological effect of arimoclochol in support of the clinical results. The biomarker data showed a biological response to arimoclochol on key characteristics of its mechanism of action and the disease biology of NPC. This includes the important rescue protein HSP70 and accumulating lipids involved in the disease pathology. HSP70 levels in peripheral blood mononuclear cells, or PMBCs, showed a statistically significant increase in patients treated with arimoclochol (p=0.0010) demonstrating target engagement. The accumulation of un-esterified cholesterol in PMBCs was less in the arimoclochol group as compared to the placebo group (p=0.0959) and the change in the cholestane-triol levels in serum declined more in the arimoclochol group as compared to the placebo group (p=0.2251). Furthermore a reduction of the cholesterol metabolite oxysterol was also observed (p=0.0613). We believe these results support our hypothesis that arimoclochol may correct the underlying pathology of NPC based on observed biomarker response that it is in line with preclinical data, such as increased levels of HSP70, reduced lipid burden and improved measurable manifestations of ataxia.

Safety results. Arimoclochol was well-tolerated with a similar incidence of adverse events, or adverse events, for arimoclochol (88%) and placebo control (75%). Common adverse events that occurred in at least 8%

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of patients with NPC treated with arimoclomol and more frequently than in patients receiving placebo were: decreased weight (transient), tremor, urticaria, and decreased appetite (see table below).

Safety results: Common adverse events reported in Phase 2/3 clinical trial occurring in at least 8% of patients treated with arimoclomol than in patients receiving placebo.

Adverse Reaction	Arimoclomol (N=34) n (%)	Placebo (N=16) N (%)
Weight decrease*	5 (14.7)	0
Tremor	3 (8.8)	0
Urticaria	3 (8.8)	0
Decreased appetite	3 (8.8)	0

* For the majority of the patients the weight decrease was temporary.

Three patients (9%) withdrew because of adverse events, all in the arimoclomol group (2 urticaria/angioedema and one patient with a two-fold increase in serum creatinine from baseline) (see table below). Serious adverse events, or SAEs, occurred less frequently in the arimoclomol group (15%) compared to placebo control (31%). All SAEs, except 2 events of urticaria and angioedema in the arimoclomol group, were assessed as not related to arimoclomol and were in line with the expected adverse event profile in NPC patients. One patient died due to cardiorespiratory arrest. The event was assessed as related to the underlying NPC disease and not related to arimoclomol.

Summary of Adverse Events: Double-Blind Phase

	Arimoclomol 372 mg (1) weight- adjusted N (%) E		Placebo N (%) E	
Safety set (N,%)	34 (100.0)		16 (100.0)	
TEAEs	30 (88.2) 278		12 (75.0) 87	
Serious TEAEs	5 (14.7) 9		5 (31.3) 8	
Non-serious TEAEs	30 (88.2) 269		12 (75.0) 79	
TEAEs leading to withdrawal from IMP	3 (8.8) 4			
AEs with fatal outcome	1 (2.9) 1			
Severity of TEAEs				
Mild	27 (79.4) 148		12 (75.0) 48	
Moderate	26 (76.5) 120		9 (56.3) 34	
Severe	4 (11.8) 10		3 (18.8) 5	
Relationship of TEAEs				
Probably related	5 (14.7) 12			
Possibly related	12 (35.3) 26		3 (18.8) 3	
Not related	30 (88.2) 240		12 (75.0) 84	
Relationship of serious TEAEs				
Probably related	2 (5.9) 3			
Not related	3 (8.8) 6		5 (31.3) 8	

(1) Arimoclomol citrate 200 mg three times a day weight-adjusted.

The safety results reported during the 12-month open label extension is detailed in the table below which provides an overview of adverse events and SAEs during the open-label extension portion of the trial. Similar to the doubled-blinded portion of the trial, a total of 87.8% of the patients reported at least one treatment emergent adverse event. A slightly higher proportion of patients (24.4%) reported at least 1 SAE in the open-label portion of the trial than in the arimoclomol group during the double-blinded phase (14.7%), while the proportion was lower than in the placebo group of the double-blinded phase (31.3%). One out of the 19 SAEs were assessed as probably related to arimoclomol (an event of proteinuria which did not resolve, although the arimoclomol dosing continued unchanged). The proteinuria did not have clinical symptoms. One patient died during the first 12 months of the open-label portion of the trial due to lower respiratory tract infection, which was deemed to be unrelated to treatment by the investigator.

Summary of Adverse Events: Open-Label Phase

	Arimoclomol 372 mg (1) weight- adjusted/ Arimoclomol 372 mg (1) weight- adjusted N (%) E		Placebo/ Arimoclomol 372 mg (1) weight- adjusted N (%) E		Arimoclomol Total N (%) E	
Safety set (N,%)	26 (100.0)		15 (100.0)		41 (100.0)	
TEAEs	24 (92.3) 114		12 (80.0) 48		36 (87.8) 162	
Serious TEAEs	8 (30.8) 17		2 (13.3) 2		10 (24.4) 19	
Non-serious TEAEs	24 (92.3) 97		12 (80.0) 46		36 (87.8) 143	
TEAEs leading to withdrawal from IMP	2 (7.7) 3		1 (6.7) 2		3 (7.3) 5	
AEs with fatal outcome	1 (3.8) 1				1 (2.4) 1	
Severity of TEAEs						
Mild	20 (76.9) 54		9 (60.0) 27		29 (70.7) 81	
Moderate	17 (65.4) 44		5 (33.3) 21		22 (53.7) 65	
Severe	9 (34.6) 16				9 (22.0) 16	
Relationship of TEAEs						
Probably related	1 (3.8) 1		1 (6.7) 1		2 (4.9) 2	
Possibly related	2 (7.7) 2		3 (20.0) 4		5 (12.2) 6	
Not related	24 (92.3) 111		11 (73.3) 43		35 (85.4) 154	
Relationship of serious TEAEs						
Probably related	1 (3.8) 1				1 (2.4) 1	
Not related	8 (30.8) 16		2 (13.3) 2		10 (24.4) 18	

(1) Arimoclomol citrate 200 mg three times a day weight-adjusted.

Trial extension. We also conducted an open-label Phase 2/3 extension clinical trial in NPC following 41 patients and reported interim results in January 2020. This 12-month interim data from the open-label extension trial showed sustained effect in reducing disease progression over two years and further demonstrated the potential of arimoclomol in NPC. Arimoclomol was well-tolerated and no new safety signals were detected during the first 12 months of the open-label extension trial. We will continue to follow the patients on an open-label basis for 24-months from the completion of the Phase 2/3 clinical trial.

QTc trial. A thorough QT trial with arimoclomol is currently being conducted to assess potential effects of arimoclomol on ventricular repolarization and arrhythmia risk by assessing the potential presence of a small change in the corrected QT, or QTc, interval. The QTc clinical trial has been delayed due to COVID-19, which may delay the timing of FDA approval for arimoclomol in NPC. However, although no assurance can be given, we expect the trial will be completed while the FDA is still reviewing this NDA.

Regulatory Pathway

In September 2020, the FDA accepted our NDA with priority review. The FDA has set a target action date of March 17, 2021 under the PDUFA for completion of its review of our NDA. We also intend to submit an MAA with the EMA in the second half of 2020.

Arimoclomol for the Treatment of Neurological Gaucher Disease

We initiated a randomized, double-blinded, dose-ranging Phase 2 clinical trial of arimoclomol in Gaucher disease in June 2018, which completed enrollment in August 2019. We reported top-line results from this Phase 2 clinical trial in June 2020.

Overview of Gaucher disease

Gaucher disease is a rare, inherited metabolic disorder causing certain sugar containing fats to abnormally accumulate in the lysosomes of cells, especially within cells of the blood system and nerve cells, thereby affecting organs such as the brain, bone marrow, spleen and liver, due to the lack of a certain enzyme (glucocerebrosidase). The symptoms vary greatly from patient to patient with some patients having few or no symptoms while others may experience significant complications. The typical systemic symptoms of Gaucher disease, which can appear at any age, include an abnormally enlarged liver and/or spleen (hepatosplenomegaly), low levels of circulating red blood cells (anemia) and blood cells promoting clotting (thrombocytopenia) and skeletal abnormalities. Gaucher disease is an autosomal recessive disorder where the lack of glucocerebrosidase activity is caused by mutations in the glucocerebrosidase, or GBA, gene encoding the enzyme.

Three distinct forms of Gaucher disease have been identified to date based on the absence or presence of neurological manifestations and the extent of such complications. Gaucher Type 1 is at the outset characterized by a lack of neurological manifestations and usually results in a low level of blood clotting cells (thrombocytopenia) and a low level of red blood cells in circulation (anemia) causing easy bruising and chronic fatigue, respectively. In addition, affected individuals may experience an abnormally enlarged liver and/or spleen (hepatosplenomegaly) and skeletal anomalies. Gaucher Type 1 is most prevalent in Western countries, accounting for an estimated 95% of the 15,000 patients diagnosed with Gaucher disease across the United States and European Union. The remaining 5% of patients with Gaucher disease in these regions suffer from Gaucher Type 3. Gaucher Type 2 is rare. It is estimated that up to 30% of patients diagnosed with Gaucher Type 1 develop neurological symptoms later in life, including 5-7% showing Parkinsonism symptoms. Gaucher Type 2 (so-called acute neuronopathic Gaucher disease) is characterized by onset in the early months of life and entails neurological manifestations arising from the accumulation of a certain lipid (glucocerebroside) in the brain. The symptoms include enlargement of the spleen (splenomegaly), loss of motor skills, involuntary muscle spasms (spasticity), decreased muscle tone (hypotonia) and dysphagia. Gaucher Type 2 usually results in fatality by three years of age. Finally, patients with Gaucher Type 3 (so-called chronic neuronopathic Gaucher disease) may experience the same blood and bone anomalies as Gaucher Type 2, however, with the neurological manifestations usually progressing at a slower rate. Gaucher Type 3 usually onsets during the first decade of life and patients may live into their teens, early 20s and some even longer. Gaucher Type 3 has a higher reported prevalence in China, Japan and India. As the presence of neurologic symptoms are not confined to a single type of Gaucher disease, and with no approved treatments for the neurological manifestations of the disease, we are focused on investigating arimoclomol in all Gaucher disease patients.

The diagnosis of Gaucher disease is made upon characteristic symptoms, as described above, especially in conjunction with enlargements of the spleen and/or liver and fractures. The diagnosis can be confirmed by clinical evaluations and numerous tests measuring the activity in, for example, white blood cells or skin cells along with an analysis of potentially mutated genes.

Gaucher disease is the most common LSD, with an estimated incidence of one in 50,000 individuals in the general population with an exceptionally high prevalence in the Ashkenazi Jewish population, up to one per

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850 individuals, and affects up to an estimated 15,000 individuals in the United States and Europe combined. According to Grand View Research, in 2017, global sales of products for treatment of Gaucher disease was \$1.55 billion.

Treatment Options for Gaucher Disease and Unmet Need

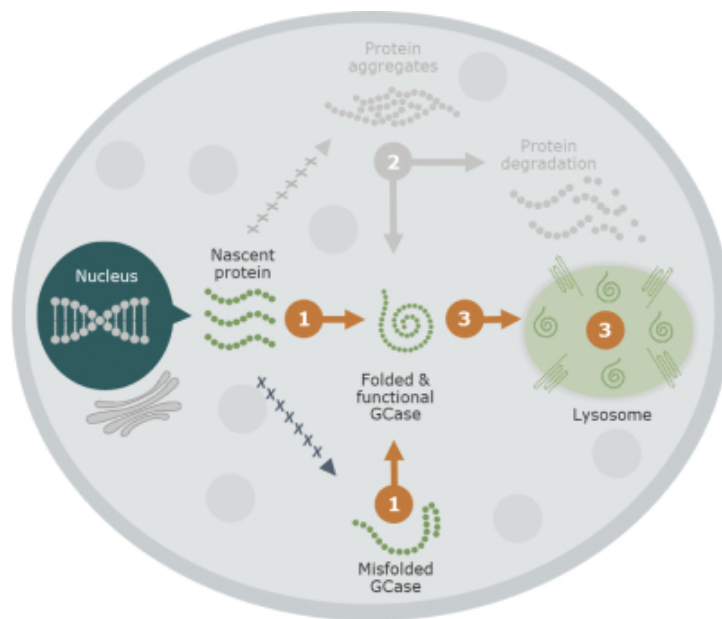
Two types of treatment are currently available for patients with Gaucher disease: ERT, such as Cerezyme (Sanofi), Elelyso (Pfizer) and Vpriv (Shire), and SRT, using Zavesca or Cerdelga (Sanofi). These treatments were approved based on their ability to improve the systemic peripheral features of Gaucher disease, but not the neurological manifestations of the disease, and none of them are approved for treatment of Gaucher disease Type 2 and 3. In addition to ERT and SRT, there are few other advanced programs, which are discussed in more detail below under “—*Competition.*”

As currently available therapies do not treat the pathology of the CNS, a significant unmet need for treatment of Gaucher disease continues to exist, especially for Gaucher Type 2 and Type 3 and Gaucher Type 1 patients developing neurological symptoms at a later disease stage.

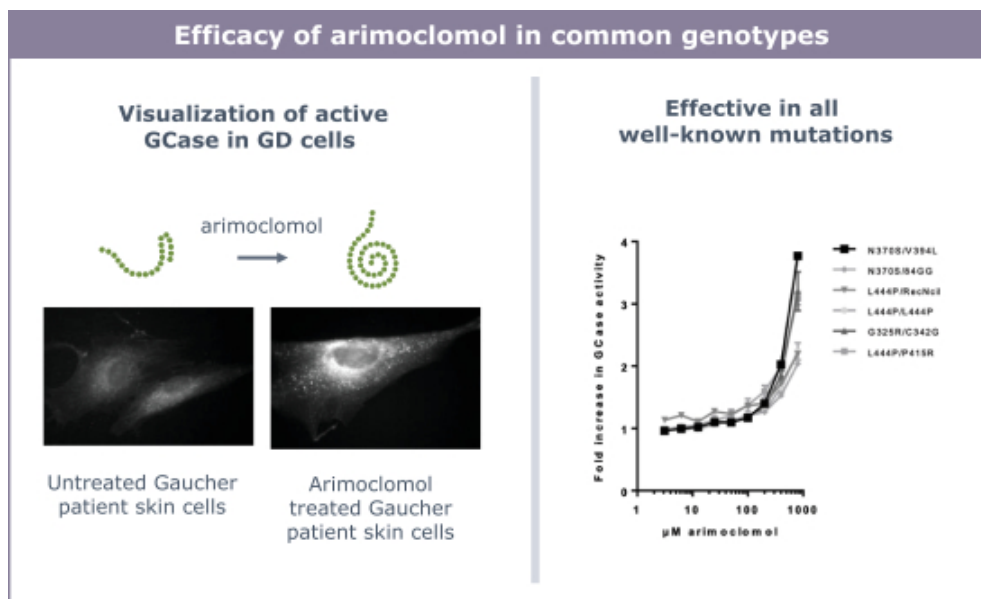
Our Solution—Arimoclomol for Neurological Gaucher Disease

With Gaucher disease, mutations in the GBA gene encoding the lysosomal enzyme glucocerebrosidase, or GCCase, lead to enzyme misfolding and loss of activity. This leads to accumulation of lipids in the lysosomes which causes lysosomal and cellular dysfunction. HSP70 is a key protein in Gaucher disease and has been shown to directly bind to and chaperone GCCase. To date in our clinical trials, we have observed that arimoclomol amplifies and sustains levels of HSP70 which, as shown in the figure below:

- Prevents and corrects misfolded, dysfunctional GCCase, specifically improves GCCase refolding, maturation and lysosomal activity across genotypes (as indicated by (1) in the figure below); and
- Improves lysosomal function by chaperoning GCCase into lysosome, thereby increasing lipid metabolism and removal. In addition, intra-lysosomal HSP70 also enhances lipid metabolism thereby stabilizing lysosomal membranes and preventing cell death (as indicated by (3) in the figure below).



The increase in GCCase activity from arimoclomol has been confirmed in a complementary neurological Gaucher disease stem cell model and marked effects were observed across common genotypes, including L444P, as shown in the figure below.



Clinical Trials of Arimoclomol for the Treatment of Gaucher Disease

In June 2020, we reported top-line 6-month data from a multicenter, randomized, double-blinded, placebo-controlled, dose-ranging Phase 2 clinical trial. The trial enrolled 39 patients who have been diagnosed with either Gaucher disease Type 1 or Type 3 who are naive to any treatment for Gaucher disease. The trial was conducted at seven clinical sites in India where access to SRT and ERT was limited. This allowed for direct assessment of the effect of arimoclomol treatment on pharmacodynamic biomarkers in blood and other tissues, as ERT treatment may obscure the effect of arimoclomol on peripheral symptoms and biomarkers. In addition, performing the clinical trial in India provided patients (aged between 4 and 60 years) suffering from this rare disease with the opportunity to receive a potential treatment.

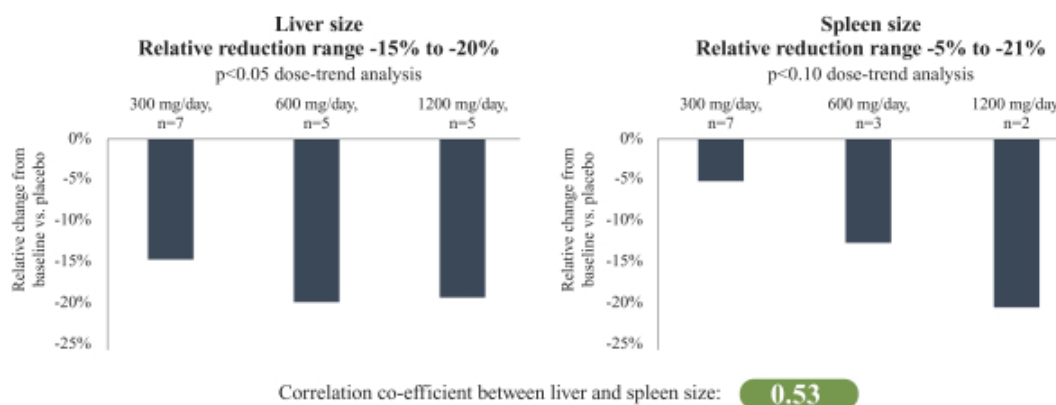
Trial design. Patients were randomized 1:1:1:1 into four treatment arms – active treatment three times per day at three different doses (arimoclomol citrate 1200 mg, 600 mg or 300 mg daily, weight-adjusted) and placebo, and assessed for six months. Following the placebo-controlled period, the placebo group has been re-randomized into one of the three active treatment groups for a long-term extension with the next data readout at six months. Overall, data from 37 patients were analyzed, of which 21 were Gaucher disease Type 1 and 16 were Gaucher disease Type 3. Two patients were excluded from the analysis due to negative confirmatory Gaucher disease genotype. The mean age of the 37 patients was 11.8 years.

The primary endpoint in this clinical trial is the reduction of chitotriosidase activity levels in blood from baseline to six months. Chitotriosidase was deemed to be the most suitable biomarker of Gaucher disease at the time of the trial design, because it is found in high levels in patients whose immune cells have accumulated an excess lipid burden. However, there can be large inter-subject variability in chitotriosidase, different chito-genotypes determine enzyme activity and chitotriosidase is not directly linked to the arimoclomol mechanism of action. Because of these limitations, we believe chitotriosidase is of limited value moving forward and we no longer intend to use chitotriosidase as a key endpoint in our clinical trials in Gaucher disease. Secondary

endpoints include growth and maturation endpoints, such as change in weight and age at pubertal onset, imaging endpoints such as longitudinal change in size of the liver and spleen, and other biomarker endpoints in the blood and CSF.

Efficacy results. Arimoclomol demonstrated a relative reduction in serum chitotriosidase activity from baseline to six months, the primary endpoint, across all dosages compared to placebo ranging from -12% to -29%, although statistical significance was not achieved ($p=0.4$). However, we observed a statistically significant dose-dependent reduction in liver size ranging from -15% to -20% relative to placebo (dose trend analysis $p<0.05$). In addition, we observed a dose-dependent reduction in spleen size ranging from -5 to -21% relative to placebo was observed, although statistical significance was not achieved, likely due to the small sample size (dose trend analysis $p<0.10$). A non-significant directional dose-dependent reduction in the Gaucher Type 1 severity score outcome, a validated tool to monitor adult Gaucher Type 1 patients that tracks hematological, visceral and bone domains, was also observed across treatment groups. A post-hoc calculation of the correlation between liver and spleen size was conducted, which supports consistency of effect (correlation coefficient: 0.53). Patients anemic at baseline showed a time-dependent increase in hemoglobin in the highest dose group ($p<0.05$). Consistent with arimoclomol's proposed mechanism of action, we observed a dose-dependent increase in the exploratory biomarker, glycosylsphingosine (lyso-Gb1), possibly indicating release out of the cells of affected organs into the blood.

Efficacy results: Dose Dependent Reduction in liver and spleen size



Safety results. Arimoclomol was well tolerated with a slightly higher incidence of adverse events (70% placebo; 83% arimoclomol all doses) and serious adverse events (SAEs: none in placebo group; 21% arimoclomol all doses) in the arimoclomol groups compared to the placebo group. The most common adverse events are shown in the table below. One patient who had elevated bilirubin at baseline discontinued treatment due to an increase in transaminases (levels of liver function enzymes) which was assessed as probably related to arimoclomol by the investigator. The transaminases normalized a few weeks after stopping the treatment. All SAEs, except an event of hepatic encephalopathy described below and the event of abnormal liver function tests were assessed as not related to arimoclomol by the investigator.

Safety results: Overall incidence of TEAEs (treatment-emergent adverse events) with arimoclomol was 83% (n=24/29) and with placebo was 70% (n=7/10)

	Placebo N=10 N (%)	Arimoclomol 300 mg/ day N=10 N (%)	Arimoclomol 600 mg/ day N=9 N (%)	Arimoclomol 1200 mg/ day N=10 N (%)
Patients with Any TEAE in Double-Blinded Phase	7 (70.0)	9 (90.0)	7 (77.8)	8 (80.0)
Pyrexia	1 (10.0)	3 (30.0)	1 (11.1)	3 (30.0)
Cough	2 (20.0)	4 (40.0)	1 (11.1)	1 (10.0)
Epistaxis	1 (10.0)	1 (10.0)	2 (22.2)	3 (30.0)
Vomiting	1 (10.0)	1 (10.0)	2 (22.2)	3 (30.0)
Abdominal pain	0	2 (20.0)	2 (22.2)	1 (10.0)
Upper respiratory tract infection	2 (20.0)	2 (20.0)	2 (22.2)	0
Viral upper respiratory tract infection	0	4 (40.0)	0	0
Diarrhoea	2 (20.0)	0	0	0

Three deaths occurred during the blinded phase of the trial, one of which was deemed possibly related to treatment by the investigator and two of which were deemed unrelated to treatment by the investigator. One of those deaths was due to an event of hepatic encephalopathy, which was assessed by the investigator as possibly related to arimoclomol.

During the ongoing extension portion of the trial, as of July 30, 2020, nine patients have had SAEs including four patients who died. One patient died due to upper gastrointestinal bleeding with pneumonia, which was deemed to be probably related to arimoclomol by the investigator. In addition, one patient died after episodes of vomiting followed by cough and difficulty breathing, which was deemed to be possibly related to arimoclomol by the investigator. The two other deaths were deemed to be unrelated to arimoclomol by the investigator. One non-fatal SAE of abnormal liver function tests has also been assessed as possibly related to arimoclomol by the investigator. The patient recovered after treatment using arimoclomol was halted.

These findings have been shared with the health authorities and ethics committees who have not provided any feedback or highlighted any concerns with the safety results to date and the Independent Data Monitoring Committee has recommended that the extension portion of the trial continue as planned. We believe that these data support using weight-adjusted dosing regimens in future clinical trials.

Trial extension. Following the placebo-controlled period, the placebo group has been re-randomized into one of the three active treatment groups for a long-term extension with the next data readout at six months. We will continue to evaluate clinical outcomes, monitor safety, and further explore relevant biomarkers.

Clinical Development Plan

Based on the top-line results of the Phase 2 trial, we intend to proceed with pivotal-stage clinical development in neurological Gaucher disease. We intend to discuss these data, along with results from the extension portion of the trial, with Gaucher disease experts and regulators.

Our Program for the Treatment of Neuromuscular Disorders

Neuromuscular disorders encompass a range of conditions affecting a part of the neuromuscular system and impairing the functioning of the muscles, thereby causing muscle weakness. In particular, the disorders affect

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the nerve cells that send messages to control the voluntary muscles (*i.e.* muscles one can control, such as arms and legs) and the muscles themselves. As the disorders manifest, the neurons become unhealthy or die, resulting in a loss of communication between the nervous system and the muscles. Weakening of the muscles may lead to aches, pains, movement problems and may affect the heart function and ability to breathe, speak and swallow. The causes of neuromuscular disorders vary by type, but the diseases targeted by us are characterized by protein misfolding and aggregation, prohibiting proper recycling. Protein aggregation can cause cell stress and eventually cell death.

The two neuromuscular disorders that we are currently targeting are ALS and sIBM.

Arimoclomol for the Treatment of Amyotrophic Lateral Sclerosis

Based on investigator-initiated preclinical studies and clinical proof-of-concept observed in two Phase 2 clinical trials of arimoclomol in ALS, we are currently conducting a Phase 3 clinical trial assessing efficacy and safety of arimoclomol. The clinical trial is intended to support a marketing authorization in the broad ALS population. We expect to announce top-line results from the clinical trial in the first half of 2021.

Overview of ALS

ALS, which is also commonly referred to as Lou Gehrig's disease, is a rapidly progressing neurological disease with the onset typically occurring between 40 to 70 years of age, with patient mortality occurring in most patients within three to five years of disease onset. ALS attacks neurons responsible for controlling voluntary muscles, resulting in muscle weakness in limbs, and impacts speaking, chewing, swallowing and breathing, leading to progressive disability and eventually death, typically from respiratory failure and aspiration pneumonia. In addition, up to 50% of patients with ALS develop cognitive impairment associated with frontotemporal dementia. The cause of damage to the neurons is unknown, but several theories have been proposed, including glutamate toxicity, protein misfolding and oxidative stress.

About 10% of ALS cases are inherited and are associated with pathogenic mutations, which are commonly referred to as "familial ALS," and the remaining 90% have a sporadic onset of ALS, or ALS without any identified genetic component. Both familial and sporadic ALS is characterized by the presence of inclusions of aggregated proteins in motor neurons. Although many different proteins are known to form aggregates in ALS, the most common is TDP-43 which is found to be mislocalized and aggregated in up to 97% of all ALS patients. Mutations in TDP-43 are associated with familial ALS (5-10% of cases), but it belongs to a group of several RNA binding proteins that are found in aggregates in ALS, also in their normal form without any mutation. In about 20% of the cases of familial ALS, which accounts for 2% of the total ALS population, mutations in the gene coding for the copper-zinc SOD1 enzyme have been found. SOD1 is an enzyme with antioxidant properties important in the protection against free radicals, a highly reactive oxygen species that can damage cellular components via oxidative stress. Defects in SOD1 may cause ALS via two mechanisms: inhibition of SOD1 enzymatic activity and the formation of toxic SOD1 protein aggregates.

In Western countries, the rate of diagnosis is high, but initial symptoms of ALS can be subtle at first, and it may take 12 to 14 months to be accurately diagnosed. Early symptoms of ALS may resemble those of other diseases and therefore other diseases must be excluded before the diagnosis of ALS can be made. For that, certain diagnostic procedures, such as magnetic resonance imaging or a test to detect electrical activity in muscles (electromyography) may be utilized. ALS is characterized by degeneration of both the upper and lower motor neurons. Some patients with ALS may initially present only with findings due to degeneration of the upper motor neurons. Lower motor neuron degeneration usually appears within three to five years in these patients.

Despite being classified as a rare disease, ALS is considered one of the more common neurodegenerative diseases worldwide. The Centers for Disease Control and Prevention estimates that there are approximately 16,000 cases of ALS in the United States and that approximately 5,000 new cases are diagnosed

each year. The number of total cases for the largest five markets in Europe (Germany, France, Italy, Spain and the United Kingdom) is estimated to be slightly higher and for the broader European geography the estimate is approximately 30,000 cases. Therefore, we estimate the market for the United States and Europe is approximately 50,000 patients. ALS affects men to women at a ratio of 3:2.

Treatment Options for ALS and Unmet Need

There are currently a limited number of available treatments for ALS and these only impart a modest effect. Currently available treatments have been shown to only provide symptomatic management of patients with mild to moderate disease and easing intervention in patients with severe or terminal disease. Patients are often managed by specialized multidisciplinary care sites, of which there are approximately 200 in the United States, or by community practices and clinics.

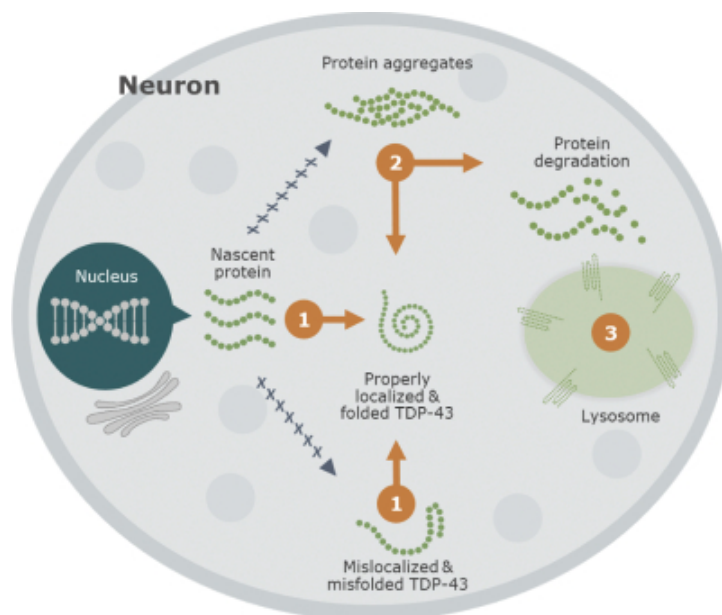
Until recently, the only approved pharmaceutical drug used for slowing disease progression in ALS was Rilutek (riluzole). It was the first drug to be approved by the FDA for the treatment of ALS more than 20 years ago and is now available in oral generic tablets as well as branded liquid and film formulations. In May 2017, the FDA approved Radicava (edaravone), which is administered through chronic cycles of 14-days of intravenous infusions followed by a two-week treatment-free period. In recent years, the FDA approved two new formulations of riluzole that address the need for an improved route of administration in patients who suffer mobility and swallowing complications. In September 2018, the FDA approved Tiglutik, an oral suspension administered via syringe. In November 2019, Exservan, a new soluble oral formulation which dissolves on the tongue, was approved. In Europe, the only approved pharmaceutical drug to extend the patient's life or to delay the need for mechanical ventilation in ALS is riluzole. With the current treatment options there is still a major need for new effective treatments for patients with ALS in order to improve the disease course and to further extend survival.

Our Solution—Arimoclomol for ALS

The pathological processes in motor neurons include protein misfolding, mislocalization and aggregation, with the presence of misfolded and aggregated proteins, as well as ubiquitin-positive inclusions (aggregates) containing RNA-binding proteins, such as the signature protein, TDP-43. Misfolding and aggregation of TDP-43 is associated with cell dysfunction and cell death and motor neuron cells are highly vulnerable as they are not replaced and cannot regenerate. To date in our clinical trials, we have observed that arimoclomol amplifies and sustains levels of HSP70 which, as shown in the figure below:

- Prevents the misfolding and mislocalization of TDP-43 (as indicated by (1) in the figure below);
- Prevents inclusion formation, including aggregation of ubiquitin and TDP-43 in the cytoplasm (as indicated by (2) in the figure below); and

- HSP70 improves lysosomal function which is thought to facilitate protein degradation and clearance of aggregates (as indicated by (3) in the figure below).



Completed Clinical Trials of Arimoclomol for the Treatment of ALS

Arimoclomol has so far been tested in two Phase 2 ALS trials, one dose-ranging trial with open-label extension in ALS, Trial AALS-001, and one trial in rapidly progressive ALS caused by SOD1 mutations, Trial 20100758.

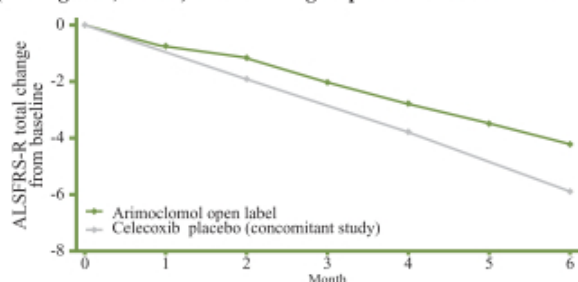
Trial AALS-001

Trial design. A CytRx-sponsored 12 week dose-ranging clinical trial in ALS patients was performed with the objective to assess the safety, tolerability and pharmacokinetics of arimoclomol in ALS. A total of 84 patients with ALS received arimoclomol citrate at one of three oral doses (25, 50 or 100 mg three times daily) or placebo. The primary outcome measure was safety and tolerability.

Trial results. Arimoclomol citrate at doses up to 300 mg/day was observed to be well tolerated. Arimoclomol resulted in dose-linear pharmacologic exposures and the half-life did not change with continued treatment. Arimoclomol CSF levels increased with dose and reached a CSF-to-serum ratio of 1 at steady state and equilibrium indicating that arimoclomol crosses the blood-brain-barrier. 77 patients completed the 12 weeks of treatment, of which 69 patients enrolled in a six-month open-label trial at the highest dose (arimoclomol citrate 100 mg three times daily). In the open label clinical trial, the rate of decline of ALSFRS-R was slower in the arimoclomol-treated group than in a historical placebo control group, controlling for baseline ALSFRS-R ($p=0.034$).

Efficacy results: Arimocloamol slowed disease progression by 30%

ALSFERS-R total change from baseline in the open label arimocloamol study (100 mg TID; n = 69) vs a control group from a concomitant study



A total of nine SAEs were reported in seven patients in the arimocloamol group, including pulmonary embolus, myasthenia/ALS progression, apnea and respiratory disorder, but all SAEs were determined not to be treatment-related. During the open label trial, a total of 13 patients experienced 16 SAEs including ALS progression, respiratory failure, deep vein thrombosis and gastrostomy. These SAEs were considered not related or unlikely related to the treatment other than the event of pulmonary embolism, which was considered to be possibly related to the treatment.

Trial 20100758

Results from an investigator-led randomized, double-blinded, placebo-controlled Phase 2/3 clinical trial conducted in patients with SOD1 ALS were published in 2018. The Phase 2/3 clinical trial was conducted in collaboration with University of Miami, Emory University and Massachusetts General Hospital and Harvard University. The primary objective of the trial was to investigate the safety and efficacy of arimocloamol in ALS patients with pathogenic mutations in the SOD1 gene. Although the clinical trial was not powered for efficacy, the results revealed a consistent trend across all efficacy endpoints. A key aspect of this clinical trial was the selection of a trial patient population with pathogenic SOD1 mutation and rapid disease progression which allowed for signal detection despite the small size of the clinical trial.

Trial design. A total of 36 patients were randomized 1:1 into two treatment arms, arimocloamol citrate (200 mg three times daily) and placebo, with 13 patients in each treatment arm with the A4V mutation, and assessed for a total of 12 months. The primary endpoints were safety and tolerability. The secondary efficacy endpoints included survival, the revised ALSFRS-R and forced expiratory volume in six seconds, or FEV6%, a measurement of lung function. In addition, the combined assessment of survival and function, or CAFS, a composite score of survival and ALSFRS-R, which is detailed in the figure below, was included.

12-domain ALSFRS-R: Amyotrophic Lateral Sclerosis Functional Rating Scale

Domain	Score	0	1	2	3	4
Speech		Loss of useful speech	Speech combined with non-verbal communication	Intelligible with repeating	Detectable speech disturbance	Normal
Salivation		Marked drooling, requires constant tissue	Marked excess of saliva with some drooling	Moderately excessive saliva, may have minimal drooling	Slight but definitive excess of saliva; may have night-time drooling	Normal
Swallowing		Exclusively parenteral or enteral feeding	Needs supplemental tube feeding	Dietary consistency changes	Early eating problems – occasional choking	Normal
Handwriting		Unable to grip pen	Able to grip pen but unable to write	Not all words are legible	Slow or sloppy; all words are legible	Normal
Dressing & Hygiene		Total dependence	Needs attendant for self-care	Intermittent assistance or substitute methods	Independent and complete self-care with effort or decreased efficiency	Normal
Cutting food and handling utensils		Needs to be fed	Food must be cut by someone, but can still feed slowly	Can cut most foods, although clumsy and slow; some help needed	Somewhat slow and clumsy, but no help needed	Normal
Turning in bed and adjusting covers		Helpless	Can initiate, but not turn or adjust sheets alone	Can turn alone or adjust sheets, but with great difficulty	Somewhat slow and clumsy but no help needed	Normal
Walking		No purposeful leg movement	Non-ambulatory functional movement	Walks with assistance	Early ambulation difficulties	Normal
Climbing stairs		Cannot do	Needs assistance	Mild unsteadiness or fatigue	Slow	Normal
Dyspnea		Significant difficulty, considering using mechanical support	Occurs at rest	Occurs with one or more of the following: eating, bathing, dressing	Occurs when walking	None
Orthopnea		Unable to sleep	Can only sleep sitting up	Needs extra pillows in order to sleep	Some difficulty sleeping at night due to shortness of breath	None
Respiratory Insufficiency		Invasive mechanical ventilation by intubation or tracheostomy	Continuous use of BiPAP during night and day	Continuous use of BiPAP during night	Intermittent use of BiPAP	None

Baseline clinical and demographic characteristics were similar between groups with the exception of pulmonary function and SOD1 mutations other than the A4V mutation. Of the SOD1-ALS subpopulation, the mutation known as A4V is the most commonly detected mutation in the SOD1 gene in the United States, and it is associated with a very aggressive disease course. The most frequent mutation was the A4V mutation, accounting for 72% of patients enrolled. A4V patients were well balanced across the two treatment arms (given the large proportion, sub-analyses were pre-defined for patients with this mutation). Patients with the common A4V mutation were balanced between the treatment and placebo group.

Trial results. The primary endpoints of safety and tolerability were met. The clinical trial results indicated a consistent benefit of arimoclomol over placebo on all pre-defined clinical endpoints, survival, ALSFRS-R and pulmonary function (FEV6). ALSFRS-R declined more slowly in the arimoclomol group, with treatment differences of 0.5 point/month. Survival estimates (defined as permanent assisted ventilation and tracheostomy-free survival) also favored arimoclomol compared to placebo, with an unadjusted hazard ratio of 0.67 (p=0.33). This indicates that patients treated with arimoclomol had 0.67 times the likelihood of experiencing death over 12 months compared to the placebo group patients, corresponding to a 33% reduction in probability of death during the observation period. CAFS, a score combining functionality and mortality, also indicated that arimoclomol was superior to placebo (20.9 for arimoclomol versus 16.3 for placebo, where a lower rank score indicates a worse outcome, indicating a 28% improvement with arimoclomol). Other mutations were either only in the treated group or in the placebo group. An efficacy analysis of the A4V subpopulation was therefore predefined in the protocol.

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In the A4V patient population, the clinical trial demonstrated a reduction of the progression rate on the ALSFRS-R scale by up to 28%, including a treatment difference of 0.98 point/month. On the survival endpoint, hazard ratios of 0.60 were in favor of arimoclomol, which indicates that patients treated with arimoclomol had a 40% reduction in probability of death during the observation period. In line with a functional and survival benefit there was also a reduction in the decline of pulmonary function by up to 33%. CAFS for the A4V patient population was also higher in arimoclomol compared to placebo (20.5 for arimoclomol versus 14.5 for placebo, indicating a 41% improvement with arimoclomol). Sensitivity analyses correcting for baseline imbalances confirmed the effects observed in the primary analyses.

The clinical trial results demonstrated that 200 mg of arimoclomol citrate administered three times per day for 12 months was well tolerated. The clinical trial also demonstrated that patients treated with arimoclomol showed positive trends across all clinical endpoints when compared to placebo treatment. The clinical trial was not powered to demonstrate efficacy. However, pre-defined analyses revealed consistent trends in favor of the arimoclomol-treated group across all pre-defined clinical endpoints. We believe that results observed in preclinical studies also support our hypothesis that arimoclomol may slow the rate of disease progression. This clinical trial is intended to support submission of an NDA and MAA for ALS.

Ongoing Clinical Trial of Arimoclomol for the Treatment of ALS

In August 2018, we initiated a 2:1 randomized, double blinded, placebo-controlled Phase 3 clinical trial assessing efficacy and safety of arimoclomol citrate 400 mg three times per day in patients with ALS. The clinical trial completed enrollment in July 2019 with 245 patients, across 29 centers in the United States, Europe and Canada. We expect to announce top-line results from the clinical trial in the first half of 2021.

Trial design. The primary endpoint is CAFS in arimoclomol versus placebo. Secondary endpoints include survival, function as measured by ALSFRS-R and pulmonary function as measured by slow vital capacity. The clinical trial design includes clinical enrichment strategies to ensure homogeneous disease progression in the clinical trial.

Interim safety results. In this clinical trial, increased transaminases (>3x upper limit of normal) have been observed in a minority of patients and patients' treatment allocation between arimoclomol and placebo remain blinded. For the majority of these affected patients, the elevations were asymptomatic although for some patients a concomitant rash was observed. The elevations have most commonly been observed within the first three months of treatment and values have normalized either after withdrawal or during continued treatment. Currently the association of increased transaminases to arimoclomol is undetermined but all cases are considered at least possibly related to arimoclomol until further data becomes available. The transaminase elevations were not accompanied by elevations of alkaline phosphatase.

There have also been two deaths as of June 30, 2020 that were deemed possibly related to treatment by the blinded investigator.

Arimoclomol for the Treatment of Sporadic Inclusion Body Myositis

Based on preclinical studies and clinical proof-of-concept observed in a Phase 2 clinical trial of arimoclomol in sIBM, we are currently conducting a Phase 2/3 clinical trial assessing efficacy and safety of arimoclomol in patients with sIBM in the United States and Europe. We expect to report top-line results from the Phase 2/3 clinical trial in the first half of 2021. If the results of the trial are positive, we believe the trial has the potential to form the basis for regulatory submissions.

Overview of sIBM

sIBM is an acquired, rare and a slowly progressive muscle disorder. The onset of symptoms occurs on average after age 50, with up to three of every four cases occurring in men. Among individuals older than 50 years it is the most common muscle wasting disorder. The disease is generally characterized by progressive

weakness and degeneration, or atrophy, of the muscles, especially those of the arms and legs, particularly the quadriceps. sIBM typically affects the ability to grab or manipulate objects, causes trouble walking or rising and can progress to cause severe disability. Many patients with sIBM will suffer loss of fine motor skills such as writing, grooming and the ability to eat unaided, and it is associated with significant morbidity including a propensity to fall, difficulty swallowing and severe disability. Patients with sIBM may also require use of a walking stick as early as five years after symptom onset and become wheelchair dependent and severely disabled within 10 to 15 years. In addition, difficulty swallowing (dysphagia) due to weakness of throat muscles may occur.

The cause of sIBM is unknown. It is possible that multiple immunological, genetic and environmental factors and age-related factors (degenerative factors) are all involved in the development of the disorder. Two distinct processes have been identified in individuals with sIBM—one autoimmune, or immunologic, and one degenerative—and it is possible that these processes are related. Autoimmune disorders occur when the body's immune system mistakenly attacks healthy tissue. Numerous factors support that sIBM likely may be an autoimmune disorder, including the presence of certain inflammatory white blood cells in the muscle tissue of affected individuals, which has led sIBM to be classified as an autoimmune inflammatory muscle disease. However, sIBM does not respond to conventional therapies used to treat autoimmune disorders, such as corticosteroids or immunosuppressive drugs, suggesting that other factors play a critical role in development of sIBM. In addition to inflammatory signs, muscle tissue of individuals with sIBM shows degenerative changes. Specifically, the muscle tissue of affected individuals contains compartments containing abnormal clumps of a wide range of different proteins. These clumps (or protein aggregates), called 'inclusion bodies', give the disorder its name. The significant degenerative component suggests that sIBM is primarily a degenerative muscle disorder, making protein misfolding and aggregation a prominent target for therapy.

In a recent systematic review, the prevalence of sIBM has been estimated to be 4.6 per 100,000 people, equating to an estimated 40,000 individuals living with sIBM in the United States and Europe combined. However, diagnosis of sIBM can be challenging as a result of the slow progression of the disease and patient assumption that initial weakness is due to aging, which can lead to a diagnostic delay in many cases of five to eight years from onset of the disease, in particular when patients do not consult neuromuscular experts. Today, the diagnosis of sIBM is made based on thorough clinical evaluation, careful patient history review and a variety of specialized tests, such as muscle biopsy.

This challenge in diagnosing sIBM is one of the confounding factors to the unknown prevalence of sIBM. sIBM is commonly misdiagnosed as polymyositis because the immunologic hallmarks are similar, particularly early in the disease course. The insidious onset and slow progression of the disease process accounts, in part, for the misdiagnosis. In a long-term observation study of sIBM conducted in two research centers, it was discovered that 30% of patients initially received an incorrect diagnosis. We believe that awareness of the disease would increase and patients may be diagnosed at an earlier stage of disease progression. This may in turn lead to an increase in the prevalence of sIBM through the identification of patients who are currently not diagnosed or misdiagnosed.

Treatment Options for sIBM and Unmet Need

There are currently no effective treatments for sIBM. To date, no therapeutic agent has shown efficacy in preventing, halting or reversing the progression of sIBM and therefore, no drugs have been approved for the indication. In particular, the disorder has not shown to respond to conventional therapies for autoimmune disorders, such as corticosteroids or immunosuppressive drugs. Therefore, the standard treatment option for sIBM consists only of supportive therapy such as physical, speech and occupational therapy. In addition, there are a limited number of investigational therapies currently in development for patients with sIBM.

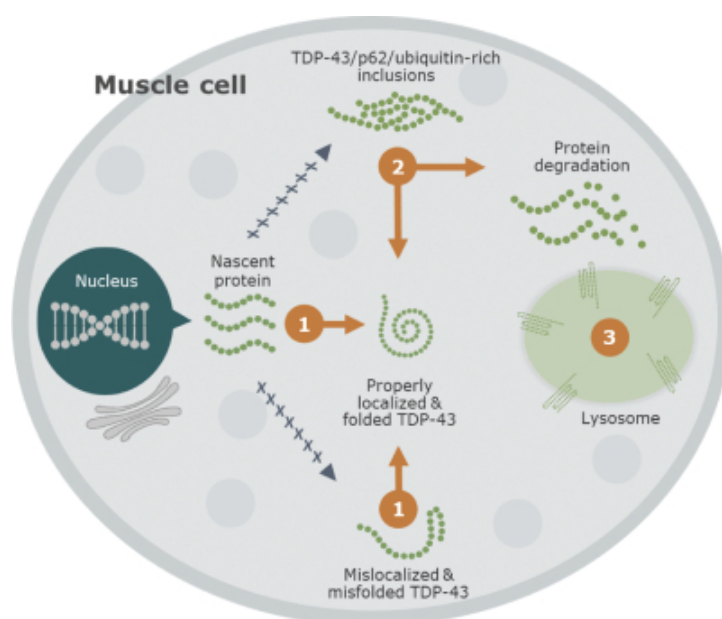
As there are currently no effective treatments for sIBM, there is a significant unmet need for safe and efficacious treatment options. Although life expectancy for sIBM patients is similar to that of the general population, quality of life is severely affected. 10 to 15 years post-symptom onset, most patients will require

assistance with basic daily activities, and some become wheelchair bound or bedridden. There is no evidence that any course of treatment slows progression. The disease can be an indirect cause of death due to respiratory failure (aspiration, dysphagia or cachexia) or infection, particularly those of the respiratory tract. In the terminal phase of illness, some patients have requested euthanasia due to unbearable suffering or terminal deep sedation has been applied due to dysphagia and cachexia.

Our Solution—Arimoclomol for sIBM

As protein misfolding, mislocalization and aggregation is a key feature of sIBM, arimoclomol's effect of the HSPs presents a novel disease-modifying therapeutic strategy. To date in our clinical trials, we have observed that arimoclomol amplifies and sustains levels of HSP70 which, as shown in the figure below:

- Prevents the misfolding and mislocalization of TDP-43, a key molecule associated with dysfunctional muscle cells in the disease (as indicated by (1) in the figure below);
- Mitigates formation of TDP-43/p62/ubiquitin-rich protein inclusion bodies, i.e. aggregates, and ensures their removal by facilitating degradation (as indicated by (2) in the figure below); and
- HSP70 improves lysosomal function which is thought to facilitate protein degradation and clearance of aggregates (as indicated by (3) in the figure below).



Completed Clinical Trials of Arimoclomol for sIBM

Results from an investigator-initiated, randomized, double blinded, placebo-controlled Phase 2 clinical trial in sIBM were published in 2016. The primary endpoint of the clinical trial was safety and tolerability of arimoclomol. Secondary endpoints included clinically relevant efficacy data, such as measurement of physical function and muscle strength, but these were not statistically powered. Post-hoc responder analysis indicated a consistent treatment response.

Trial design. A total of 24 patients were randomized 2:1 to arimoclomol (16 patients in the arimoclomol group and 8 patients in the placebo group), receiving arimoclomol citrate 100 mg three times per day versus

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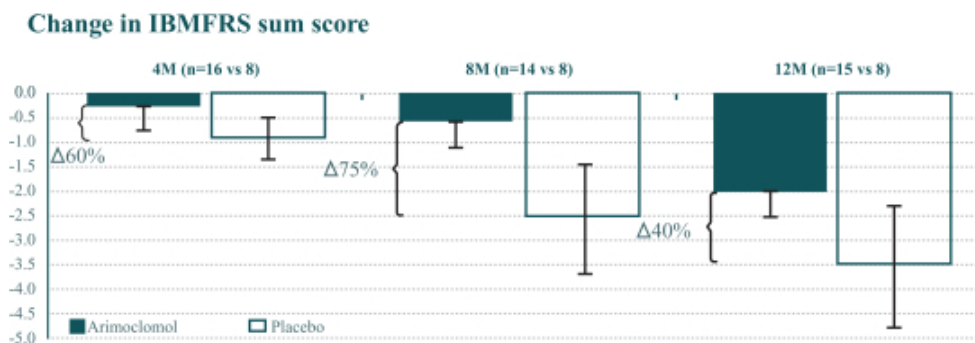
placebo treatment, respectively, and treated for four months. Baseline clinical and demographic characteristics were similar between the groups. Efficacy assessments continued beyond the randomized treatment period for eight months such that efficacy was assessed for a total of 12 months. The primary endpoint was safety and tolerability. Efficacy endpoints were secondary and statistically not powered for. These secondary endpoints included IBMFRS, manual muscle testing, or MMT, and the maximum voluntary isometric contraction testing, or MVICT. IBMFRS is a ten-domain functional rating scale with a total score range 0 to 4 (within each domain, 0 ascribed to no function and 4 ascribed to normal function) which assesses a patient's ability to complete a range of tasks relevant in daily living, including writing, swallowing and climbing stairs, as detailed in the figure below.

The Inclusion Body Myositis Functional Rating Scale

Domain	Score	0	1	2	3	4
Swallowing		Needs tube feeding	Frequent choking	Dietary consistency changes	Early eating problems—occasional choking	Normal
Handwriting		Unable to grip pen	Able to grip pen but unable to write	Not all words are legible	Slow or sloppy; all words are legible	Normal
Cutting food		Needs to be fed	Food must be cut by someone, but can still feed slowly	Can cut most foods, although clumsy and slow; some help needed	Somewhat slow and clumsy, but no help needed	Normal
Fine motor tasks		Unable	Frequently requires assistance from caregiver	Independent but requires modified techniques or assistive devices	Slow or clumsy in completing task	Independent
Dressing		Total dependence	Requires assistance from caregiver for some clothing items	Independent but requires assistive devices or modified techniques	Independent but with increased effort or decreased efficiency	Normal
Hygiene		Completely dependent	Requires occasional assistance from caregiver	Independent but requires use of assistive devices	Independent but with increased effort or decreased activity	Normal
Turning in bed and adjusting covers		Unable or requires total assistance	Can initiate, but not turn or adjust sheets alone	Can turn alone or adjust sheets, but with great difficulty	Somewhat slow and clumsy but no help needed	Normal
Sit to stand		Unable to stand	Requires assistance from a device or person	Requires use of arms	Performs with substitute motions but without use of arms	Independent (without use of arms)
Walking		Wheelchair dependent	Dependent on assistive device	Intermittent use of an assistive device	Slow or mild unsteadiness	Normal
Climbing stairs		Cannot climb stairs	Dependent on hand rail and additional support	Dependent on hand rail	Slow with hesitation or increased effort; uses hand rail intermittently	Normal

Trial results. Arimoclomol was observed to be well tolerated. After four months of treatment the arimoclomol group demonstrated 60% reduction in progression on the IBMFRS sum score from the baseline compared to placebo. The effect of arimoclomol on the change in IBMFRS sum score was maintained beyond the four-months treatment period. Compared to the placebo group, the decline in IBMFRS sum score was reduced by 72.8% and 40% at eight months and at 12 months, respectively. Although not powered for efficacy,

there was a trend in favor of arimoclomol on the IBMFRS ($p=0.055$) at eight months. Similar effects were observed for the two other efficacy endpoints, MMT and the MVICT.



Change in IBMFRS score (disease progression) among patients receiving either arimoclomol (filled bar) or placebo (white bar). The figure illustrates that the progression was faster among patients receiving placebo compared to patients receiving arimoclomol. N value indicates the number of patients receiving arimoclomol who attended each clinic visit (not all patients were able to attend the eight and 12 month follow up visits). The trial was not powered for efficacy, and results were not statistically significant. Source: Ahmed et. al.

In a post-hoc analysis, the assessment of disease progression showed that, irrespective of responder definition, patients on arimoclomol treatment fared better than those on placebo treatment, as illustrated in the figure below. Typically, sIBM patients progress by losing up to 2.0 to 2.5 points per eight months.

There were no significant differences between treatment groups regarding the rate, type, and severity of adverse events. There were eight adverse events in the placebo group and 14 in the arimoclomol group, the most common being gastrointestinal. In the arimoclomol group, one serious adverse event was reported as a result of persistent high blood pressure which was subsequently normalized after adjustment of the patient's anti-hypertensive medication.

The clinical trial results demonstrated that 100 mg arimoclomol citrate administered three times per day for four months was well tolerated and associated with benefits when comparing with placebo treatment and these benefits persisted for several months beyond treatment period. The clinical trial was not powered to demonstrate efficacy. However, a responder analysis revealed consistent positive trends in favor of the arimoclomol-treated group. We believe that results observed in preclinical studies also support our hypothesis that arimoclomol may slow the rate of disease progression as well as support arimoclomol's potential for disease modification.

Ongoing Clinical Trial of Arimoclomol for sIBM

We are currently conducting a multicenter randomized 1:1, double blinded, placebo-controlled Phase 2/3 clinical trial for assessing efficacy and safety of arimoclomol citrate 400 mg three times per day in patients with sIBM in 12 centers across the United States and the United Kingdom. The clinical trial was initiated in August 2017 and fully enrolled 152 patients meeting any of the European Neuromuscular Centre IBM research diagnostic criteria from the 2011 categories in April 2019. We are conducting the clinical trial in collaboration with the University of Kansas and the University College London. This trial started as an investigator-initiated trial led by the KUMC and UCL, and the sponsorship of the trial was transferred to us in December 2017. We expect top-line results from the Phase 2/3 clinical trial to be available in the first half of 2021. If successful, the trial has the potential to serve as a registrational clinical trial in support of our NDA for sIBM. In November 2017, the FDA granted an orphan drug designation to arimoclomol for the treatment of sIBM. In addition, in December 2019 we received fast track designation from the FDA for arimoclomol as a treatment for sIBM.

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Trial design. The primary endpoint is the IBMFRS. Secondary endpoints include MMT, isometric contraction testing of bilateral quadriceps muscle, 6-mins walking test, modified time up and go and grip strength. Patients included in the trial were: able to rise from a chair without support from another person or device, able to ambulate at least 20 feet or six meters with or without assistive device and had disease onset over the age of 45.

Interim safety results. In this ongoing trial, increased transaminases (>3x upper limit of normal) have been observed in a minority of patients and patients' treatment allocation between arimoclomol and placebo remain blinded. For the majority of these affected patients, the elevations were asymptomatic although for some patients a concomitant rash was observed. The elevations have most commonly been observed within the first three months of treatment and values have normalized either after withdrawal or during continued treatment. The transaminase elevations were not accompanied by elevations of alkaline phosphatase. Currently the association of increased transaminases to arimoclomol is undetermined but all cases are considered at least possibly related to arimoclomol until further data becomes available. One patient in the arimoclomol group (arimoclomol citrate 1200mg per day) experienced severe tubulointerstitial nephritis with acute tubular injury and tubular necrosis. Due to the strong temporal relationship with investigational medicinal product, or IMP, initiation without other more likely explanations for the event, a possible causal relation of the event to IMP cannot be excluded.

Supplemental Nonclinical Safety Data

A comprehensive nonclinical program covering pharmacology, pharmacokinetics, drug metabolism, safety pharmacology, single- and repeat-dose toxicity, genotoxicity, reproductive and developmental toxicity, juvenile toxicity, local tolerance and interaction studies has been conducted in arimoclomol. Carcinogenicity studies are ongoing.

The nonclinical safety studies to date have revealed adverse findings after oral administration of arimoclomol. These findings included mortality and clinical signs (primarily neuro-behavioral and gastrointestinal) at high doses, direct or indirect (via stress) effects on the immune system, slight effects on the CNS (increased activity), kidney toxicity (of no human relevance or of uncertain toxicological significance), changes in the liver (mainly adaptive changes; sporadic adverse changes at high doses), gastrointestinal tract effects (short term, but no long term effects), increased density of the lens of the eye (at high doses in a single study), reduced male and female fertility, embryo-fetal mortality and structural abnormalities and reduced offspring body weight.

We believe the existing safety pharmacology and toxicology data support oral administration of arimoclomol at the anticipated human doses of up to 400 mg three times daily, except in pregnant women who should not be treated with arimoclomol.

New Molecular Entity Programs

We are developing our next generation of HSP amplifiers based on our expertise and know-how of the role of HSPs and lysosomal biology across our targeted disease areas. We have developed an expansive library of potential product candidates and are in the process of assessing these candidates across a range of parameters including: HSP potency, GCCase activity and capacity to cross the blood-brain-barrier. These molecules are currently in lead optimization and we expect to select top candidates to move forward into preclinical assessment in the first half of 2021.

Sales and Marketing

We are building an efficient, highly specialized commercial organization in anticipation of a potential launch of arimoclomol for the treatment of NPC in the United States and Europe. Our plans include having a commercial infrastructure that is supported by high-touch patient support initiatives and established relationships

with the concentrated number of treatment centers that address NPC in advance of a potential launch in the United States. We have had significant and positive engagement with payors, physicians and patient advocacy organizations. We have already successfully established our EAP for NPC patients, which continues to provide us with significant insights to enhance our broader commercial readiness plans. We have also established a U.S. steering committee with key stakeholders to guide our preparedness for a commercial launch of NPC, if approved. In NPC, there are approximately 25 to 50 highly specialized centers in the United States and Europe that cover the vast majority of patients, and we believe this market can be effectively addressed with our own targeted commercial field force of approximately 20 to 30 representatives, alongside various high-touch patient support initiatives. In NPC, we expect to enter into an agreement with a third-party logistics firm for commercial outsourcing and related services, including customer service, warehousing and distribution, and accounting services. We expect to enter into agreements with the specialty pharmacy for patient hub and data services and for the purchase of commercial product from us upon launch of arimoclomol, if approved. We have also developed a market access plan for Europe, which includes us having begun to interact with payors in Germany and the United Kingdom. In ALS and sIBM, we intend to expand our footprint to cover key orphan disease centers and to leverage our experience gained with our EAP in NPC. We are also harnessing our EAP for NPC patients in the United States to further inform our commercial strategy. If arimoclomol is approved for additional diseases, we plan to leverage our rare disease commercial infrastructure and expertise to efficiently address those patient populations. We may also opportunistically seek strategic collaborations in disease areas or geographies that we believe could benefit from the resources of either larger biopharmaceutical companies or those specialized in a particular area of relevance, including for NPC in Japan, China, Central and Eastern Europe, the Middle East and Africa, Canada and Latin America. In determining our pricing strategy for arimoclomol, we will consider pricing for other orphan or ultra-orphan indications, as applicable, among other factors.

Manufacturing

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We use contract manufacturing organizations, or CMOs, for the manufacture of the arimoclomol citrate active ingredient and the arimoclomol capsule drug product. Manufacturing clinical products is subject to various regulations that impose procedural and documentation requirements that govern record-keeping, manufacturing processes and controls, personnel, quality control and quality assurance. Our vendors are required to comply with current good manufacturing practices, or cGMP, regulations, which are regulatory requirements enforced by the FDA, EMA and other regulatory bodies to assure proper design, monitoring and control of manufacturing processes. All facilities have good inspection histories, including by the FDA and local EU authorities. We have assembled a team of experienced employees and consultants to provide the necessary technical, quality and regulatory oversight of our CMOs. The manufacturing is performed under a Quick-to-Care™ program with Patheon, by Thermo Fisher Scientific. In addition, in connection with the transfer of manufacturing for arimoclomol to a different facility, our CMO informed us that a component of arimoclomol may deflagrate during the drying process if not manufactured with specialized equipment. Our CMO is expected to install and obtain approval for such equipment by the end of 2020 and, while we do not expect this to delay our planned submission of a MAA to the EMA in the second half of 2020, it may result in a delay in approval by the EMA of arimoclomol in NPC. We currently have no plans to build our own clinical or commercial-scale manufacturing capabilities.

The arimoclomol citrate active ingredient has to date been manufactured by Patheon API Manufacturing, Inc., which has developed the process through an internal study and confirmed the robustness of the process through validation of the process at two different manufacturing batch scales.

The arimoclomol capsules are manufactured by Patheon France S.A.S. in Bourgoin-Jallieu (France). They developed the manufacturing process through an internal study, and the validation of the manufacturing process has been successfully completed. Patheon France is responsible for the manufacturing, quality control, labeling and packaging of the product, and release for commercial distribution.

We may elect to pursue additional CMOs for manufacturing supplies of drug substance and finished drug product in the future. We believe that our standardized manufacturing process can be transferred to a number of other CMOs for the production of clinical and commercial supplies of our product candidate in the ordinary course of business.

Catalent Germany Schorndorf GmbH in Schorndorf (Germany) is under contract for the storage, labeling and worldwide distribution of product for the Orphazyme clinical trials.

Intellectual Property

Although we do not have a composition of matter patent (which are generally believed to provide the strongest patent protection) protecting arimoclomol or a patent covering the current formulation of our arimoclomol product candidate, our patent portfolio has a strategic scope of protection mainly consisting of method of use patents and patent applications issued or filed in various geographic territories. Arimoclomol is covered by a number of second medical use patents and pending patent applications. These cover or claim the medical use of arimoclomol—as well as other inducers of HSPs—in the treatment of relevant medical indications. These include LSDs, specifically NPC and Gaucher disease, as well as neuromuscular/neurodegenerative disorders, such as ALS and GCase-deficient Parkinson’s disease and frontotemporal disorders such as frontotemporal dementia, or FTD, and ALS-FTD. We do not currently have patent protection covering the use of arimoclomol in the treatment of sIBM, but we continuously explore the opportunity for additional patent coverage of arimoclomol including for use in the treatment of new indications including specific protein aggregation diseases, as well as additional coverage for specific aspects of arimoclomol in the treatment of indications in our clinical development programs.

We strive to further identify and develop novel small molecule inducers of HSPs through our NME program. We continuously evaluate potential compounds with the ultimate aim to obtain patent protection for the NME compounds, preferably as composition-of-matter.

As of September 1, 2020, we hold the rights to 10 patent families, each with a number of granted patents (approximately 113 in total) and pending patent applications (approximately 43 in total). Of these, approximately 10 pending patent applications are jointly owned with UCL Business Ltd, including in the United States, Europe, Canada and Japan.

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries in which we file, including the United States, the patent term is generally 20 years from the earliest filing date of a non-provisional patent application. In certain countries, the term of a patent that covers a pharmaceutical product may also be eligible for patent term extension when regulatory approval is granted, provided the legal requirements are met. In the United States, the Hatch-Waxman Act permits patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the pharmaceutical product is under regulatory review. The remaining term of a patent cannot extend beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and certain other jurisdictions to extend the term of a patent that covers an approved pharmaceutical product. In the future, if and when our product candidates receive approval by the FDA or foreign regulatory authorities, we will seek to extend the exclusivity period for pharmaceutical products up to five years via Supplementary Protection Certificate, or SPC, available in most European countries, and via patent term extension in the United States. We believe that it is possible to obtain at least one SPC/PTE per pharmaceutical product.

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We estimate that arimoclomol for treatment of the LDSs, NPC and Gaucher disease is covered by basic patent coverage until approximately June 2029, with the possibility of up to three and five year extensions in the United States and Europe, respectively. Other countries offer similar extensions, including Japan and Canada.

<u>Patent family</u>	<u>Type</u>	<u>Expiration</u>	<u>Regions</u>	<u>Status</u>
<i>Use of HSP70 as a regulator of enzymatic activity (PCT/DK2009/050151)</i>	<i>Second medical use—directed to hydroxylamine derivative type small molecule inducers of the HSP, including arimoclomol, and HSP70 protein, for treatment of LDSs, including NPC and Gaucher disease</i>	<i>Projected patent expiry date (for granted patents): 26 JUN 2029</i>	<i>AU, BR, CA, CN, EP, HK, IL, JP, RU, US</i>	<i>Granted and maintained in: AU, BR, CA, CN, EP (AT, BE, CH/LI, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, NL, NO, PL, PT, RO, SE, TR), HK, IL, JP, RU, US Pending in: BR, CA, EP, US</i>
<i>Methods for increasing intracellular activity of HSP70 (PCT/DK2011/050444)</i>	<i>Second medical use—directed to hydroxylamine derivative type small molecule inducers of the HSP, including arimoclomol, and HSP70 protein, for treatment of additional LDSs, such as NCL</i>	<i>Projected patent expiry date (for granted patents): 22 NOV 2031</i>	<i>EP, US</i>	<i>Granted and maintained in: EP (AT, BE, CH/LI, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, NL, NO, PL, PT, RO, SE, TR), US Pending in: EP, US</i>
<i>Arimoclomol formulation (PCT/DK2015/050275)</i>	<i>Formulation: Extended-release formulation of arimoclomol</i>	<i>Projected patent expiry date (for granted patents): 15 SEP 2035</i>	<i>AU, BR, CA, CN, EP, IL, IN, JP, KR, RU, US</i>	<i>Granted and maintained in: JP, US Pending in: AU, BR, CA, CN, EP, IL, IN, KR, RU, US</i>
<i>Heat Shock Proteins and Cholesterol Homeostasis (PCT/DK2017/050114)</i>	<i>Second medical use—directed to hydroxylamine derivative type small molecule inducers of the HSPs, including arimoclomol, and HSP70 protein, for treatment of diseases associated with dysregulation of cholesterol homeostasis</i>	<i>Projected patent expiry date (for granted patents): 10 APR 2037</i>	<i>EP, US</i>	<i>Pending in: EP, US</i>

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<u>Patent family</u>	<u>Type</u>	<u>Expiration</u>	<u>Regions</u>	<u>Status</u>
<i>Arimoclomol for treating glucocerebrosidase associated disorders (PCT/EP2017/060205)</i>	<i>Second medical use—directed to arimoclomol for treatment of glucocerebrosidase (GBA)-associated disorders, including GBA-associated Parkinson’s disease, which includes approximately 5 to 25% of patients with Parkinson’s disease who have a GBA-mutation (which is the greatest risk factor for Parkinson’s disease discovered to date)</i>	<i>Projected patent expiry date (for granted patents): 28 APR 2037</i>	<i>AU, BR, CA, CN, EP, IL, JP, KR, RU, US</i>	<i>Pending in: AU, BR, CA, CN, EP, IL, JP, KR, RU, US</i>
<i>Heat shock protein inducers and frontotemporal disorders (PCT/EP2018/063662)</i>	<i>Second medical use—directed to hydroxylamine derivative type small molecule inducers of the heat shock proteins, including arimoclomol, and HSP70 protein, for treatment of frontotemporal disorders including frontotemporal dementia FTD and ALS-FTD</i>	<i>Projected patent expiry date (for granted patents): 24 MAY 2038</i>	<i>AU, BR, CA, CN, EP, IL, JP, MX, RU, US</i>	<i>Pending in: AU, BR, CA, CN, EP, IL, JP, MX, RU, US</i>
<i>HSP70 as a biomarker (PCT/EP2019/063854)</i>	<i>Biomarker—directed to the correlation of reduced HSP70 protein levels observed in peripheral blood mononuclear cell (PBMC) samples and certain diseases; such as LSDs and neurodegenerative diseases, neuromuscular disorders.</i>	<i>Projected patent expiry date (for granted patents): 28 MAY 2039</i>	<i>PCT</i>	<i>Pending—PCT</i>
<i>A pyridine-1-oxide derivative, and process for its transformation into pharmaceutically effective compounds (PCT/HU01/00046)</i>	<i>Manufacture—directed to an arimoclomol intermediate compound and its use in the preparation of arimoclomol</i>	<i>Projected patent expiry date : 17 APR 2021</i>	<i>AU, BR, CA, CN, EP, IL, JP, US</i>	<i>Granted and maintained in: AU, BR, CA, CN, EP (DE, DK, FR, GB), IL, JP, US</i>

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<u>Patent family</u>	<u>Type</u>	<u>Expiration</u>	<u>Regions</u>	<u>Status</u>
<i>Use of a hydroxamic acid halide derivative in the treatment of neurodegenerative diseases (PCT/HU04/00098)</i>	<i>Second medical use—directed to arimoclomol for treatment of neurodegenerative diseases, including ALS and Parkinson’s disease</i>	<i>Projected patent expiry date (for granted patents): 25 OCT 2024</i>	<i>AU, BR, CA, EP, JP, RU, UA, US, ZA</i>	<i>Granted and maintained in: AU, CA, EP (AT, BE, DE, DK, ES, FR, GB, GR, HU, IT, NL, PL, PT, SE, TR), JP, RU, UA, US, ZA Pending in: US Under appeal in: BR</i>
<i>Arimoclomol for treating Gaucher disease (Unpublished)</i>	<i>Second medical use—directed to arimoclomol for treatment of aspects of Gaucher disease</i>	<i>Projected patent expiry date (for granted patents): by 24 JUNE 2041 (assuming regular filing will be made by 24 June 2021)</i>	<i>EP (priority founding)</i>	<i>Filed as a priority founding application; a regular patent application will be filed no later than 24 June 2021 claiming this priority</i>

As of June 30, 2020, our trademark portfolio contained approximately 11 trademark registrations and approximately 12 trademark applications, including one U.S. trademark registration, five EU trademark registrations, one trademark registration in each of China, Israel, India, Japan and Russia, eight pending U.S. trademark applications and four pending EU trademark applications. We have registered “ORPHAZYME” as a word mark in relevant trademark classes and jurisdictions (in the European Union and International Madrid Protocol designating the United States, Canada, Israel, India, Japan and Russia).

Furthermore, we rely upon trade secrets, know-how, continuing technological innovation and potential in-licensing opportunities to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality and invention assignment agreements with our commercial partners, collaborators, employees, and 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 an employee or a third party.

Partnerships and Academic Collaborations

We strive to further develop our expertise within our therapeutic areas of interest through close collaborations with academic experts and patient organizations. Through these partnerships, we support the advancement of molecular and clinical understandings and perform preclinical evaluations in biological models of relevant diseases. Our academic partners include academic professors and clinicians from institutions such as the University of Oxford, University College London and the University of Kansas. Through these collaborations, we have conducted a number of preclinical studies that have provided insights into the potential of HSP amplifying therapeutic strategies for LSDs and neuromuscular diseases. Further, our collaborations with the patient community have enabled patient-relevant outcomes to be assessed in scientific models and subsequently published in peer-reviewed scientific journals.

Material Agreements

Asset Purchase Agreement with CytRx

In May 2011, we entered into an Asset Purchase Agreement with the biopharmaceutical company CytRx. Pursuant to this agreement, CytRx sold and transferred certain preclinical and clinical data, patents and other intellectual property rights, and other assets, including contractual rights and obligations relating to a portfolio of chemical compounds, including arimoclomol, to us.

Under the terms of the Asset Purchase Agreement, we made an up-front cash payment of \$150,000 and further agreed to make future payments to CytRx contingent upon the achievement of specified clinical/regulatory and sales milestones as well as royalty payments based on a specified percentage of any eventual net sales of products containing one of the purchased compounds, as summarized further below. As of June 30, 2020, we have paid CytRx an aggregate of \$500,000 under the Asset Purchase Agreement, which includes the up-front cash payment of \$150,000.

Clinical/Regulatory Milestone payment obligations (non-ALS or stroke products)

We have agreed to pay CytRx clinical and regulatory milestone payments for the first two products being developed or labeled for indications other than for the treatment or prevention of amyotrophic lateral sclerosis or stroke (non-ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. The maximum aggregate amount of milestone payments that may be triggered is \$12.1 million for the first non-ALS or stroke product and \$10.3 million for the second non-ALS or stroke product developed assuming (for both products) approval in the European Union (or certain major European markets), United States and Japan. A second non-ALS or stroke product is not considered a second product (and does not trigger milestone payments) unless it contains a different compound than the first non-ALS or stroke product. In 2016, we paid CytRx \$0.1 million for achievement of a clinical milestone for the first product.

Clinical/Regulatory Milestone payment obligations (ALS or stroke products)

We have also agreed to pay CytRx clinical and regulatory milestone payments (payable one time only) for each product developed that is being developed or labelled for the treatment or prevention of ALS or stroke (ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. The maximum aggregate amount of milestone payments that may be triggered per ALS or stroke product is \$23.8 million assuming approval in the European Union (or certain major European markets), the United States and Japan. The milestone obligations are payable only once per ALS or stroke product. A subsequent ALS or stroke product may achieve a milestone and trigger a payment obligation, only if it contains a different compound than an ALS or stroke product previously achieving the same milestone, or if it contains the same compound as another ALS or stroke product previously achieving same milestone but is for a different indication. Under the terms of the Asset Purchase Agreement, we were assigned and became party to a royalty agreement with the ALS Charitable Remainder Trust pursuant to which we are obliged to pay a 1% royalty to the ALS Charitable Remainder Trust on global net sales of products to treat ALS.

Sales milestones. We also agreed to pay CytRx milestone payments upon reaching certain aggregated annual global net sales of all products developed by us containing any of the compounds purchased from CytRx. The first milestone payment is triggered on aggregated annual global net sales exceeding \$100 million. The aggregate milestone payment obligations may be up to \$50 million assuming aggregated annual global net sales in excess of \$1 billion.

Royalties. We have agreed to pay CytRx a low teens double-digit royalty on net sales of all products developed by us, our affiliates or licensees which are labeled or prescribed for the treatment or prevention of ALS or stroke and a mid-single digit royalty on net sales of all other products developed by us or our affiliates or

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licensees containing any of the compounds purchased from CytRx. Royalties accrue on a country-by-country and product-by-product basis until the latest of expiration of relevant patent claims in the country covering such product, expiry of regulatory exclusivity in the country for such product or ten years from the date of the approval of the product in the country. The royalty rates are subject to reductions for patent expiration, lack of regulatory exclusivity, third party payments and generic competition.

We have no contractual obligations to CytRx to develop or commercialize any products under the terms of the Asset Purchase Agreement and we cannot be held liable towards CytRx for our failure to do so.

Exclusive License Agreement with University of Miami

In September 2019, we entered into an exclusive license agreement with the University of Miami on behalf of itself, Emory University and Massachusetts General Hospital. Pursuant to the exclusive license agreement, we have been granted a global royalty-bearing, exclusive license to all data, know-how, inventions and technology generated by the aforementioned institutions in a Phase 2 clinical trial of arimoclomol in ALS with the A4V SOD1 mutation to research, develop, make, use or sell certain pharmaceutical products or processes containing arimoclomol. Under the license agreement, we are required to use commercially reasonable efforts to develop and commercialize the licensed product. The license is subject to rights of the U.S. federal government.

Under the terms of the exclusive license agreement, we made an up-front cash payment of \$75,000 and further agreed to make certain future payments, including (i) a development milestone payment of \$1,150,000 upon receiving regulatory approval for a pharmaceutical product containing arimoclomol for which the intended indication is ALS if the institution's Phase 2 clinical trial results were used in support of such regulatory approval, (ii) annual license fees from 2023 until the earlier of 2033 or termination of the agreement for a maximum aggregate amount of \$570,000, and, (iii) beginning on the date of first commercial sale by us, our affiliates or sublicensees of a licensed product or licensed process in a country, a low single-digit royalty on net sales of licensed products or licensed processes on a product-by-product and country-by-country basis for a period of ten (10) years thereafter unless the agreement is terminated earlier. Any annual license fees will be creditable against other payments due in the same calendar year. As of June 30, 2020, we have made payments of an aggregate of \$75,000 under the license agreement.

This license agreement will continue on a country-by-country basis until ten (10) years after the first commercial sale of a licensed product or licensed process in such country. This license agreement may be earlier terminated by us for convenience, by either party for the other party's uncured material breach, including for our failure to meet milestone schedules, or by University of Miami for our bankruptcy.

License Agreement with University of Kansas and UCL Business PLC

In October 2017, we entered into a license agreement with the University of Kansas, KU Center for Technology Commercialization Inc., Kansas Life Sciences Development Company Inc. and UCL Business PLC (a wholly-owned subsidiary of University College London, which subsequently has been converted into a Ltd). The license agreement grants us the global, royalty bearing exclusive license to all data, know-how, inventions and patent rights generated in the course of the ongoing Phase 2/3 clinical trial for testing arimoclomol in sIBM and other relevant data to research, develop, make, sell and otherwise commercialize pharmaceutical products containing arimoclomol for any purpose. Such license grant is subject to rights held by the U.S. government. The trial was initiated in August 2017 with the University of Kansas as sponsor and supported by an FDA grant. Sponsorship of the trial was transferred to us in December 2017.

Under the terms of the license agreement, we are obliged to pay an aggregate royalty of a low single-digit percentage of net sales of licensed products sold for the treatment, diagnosis, palliation or prevention in humans of sIBM for a period of 10 years in each country from the first commercial sale of a licensed product in

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such country. We are required to use commercially diligent efforts to develop and commercialize such products and to perform the development plan for the aforementioned clinical trial. As of June 30, 2020, we have not made any cash payments under the license agreement. The license agreement also provides that, in consideration of the license, we are obliged to issue bonus shares in favor of the Kansas Life Sciences Development Company Inc. (for the University of Kansas) and UCL Business Ltd, for up to an aggregate value of \$2.5 million depending on the amount of the FDA grant the universities spent the preceding calendar year (with a price per share calculated based on the average closing price of the shares on Nasdaq Copenhagen for the 30 days immediately prior to the date of issuance). The shares are required to be issued or delivered on a yearly basis subject to certain reporting requirements. As of June 30, 2020, 58,090 bonus shares had been issued.

We are also responsible for the enforcement, prosecution and maintenance of licensed patents and all associated costs, subject to the consultation rights of the University of Kansas and UCL Business Ltd. If we choose to abandon or not to maintain any licensed patent, such patent will no longer be licensed to us under the agreement.

This license agreement will continue on a country-by-country basis until ten (10) years after the first commercial sale of the licensed product in such country. This license agreement may be terminated earlier by either party for the other party's uncured material breach or bankruptcy. Following the delivery of the final clinical report for the clinical trial, we may terminate this license agreement if the clinical trial fails to achieve primary endpoints, if a regulatory authority does not approve the licensed product or if the licensed product is approved with a so called "Black-Box Warning". University of Kansas or UCL Business Ltd may terminate the agreement if the aforementioned shares cannot be issued or delivered without any costs to such parties.

Other Agreements Related to Clinical Trials of Arimoclomol

In 2013, we entered into a master service agreement with a UK-based contract research organization, or CRO. Under the terms of the master service agreement, the CRO agreed to provide various services to support our clinical testing of arimoclomol for the treatment of NPC. Contracted services comprise trial set-up and monitoring, trial and data management, statistical analytical work as well as preparation of final study report. As part of the study set-up, we are co-signing as sponsor on the clinical trial agreements entered into with the individual trial sites. Under the terms of the master service agreement, all intellectual property rights pertaining to arimoclomol, including possible patents based on data provided from inventions made during the clinical trial, are owned by us. We have agreed to indemnify the CRO for third-party claims arising from the performance of the clinical trial or from the use of arimoclomol.

We have subsequently entered into similar master service agreements for clinical trial services with three additional CROs, to support our dose-ranging Phase 2 clinical trial of arimoclomol in Gaucher disease, our Phase 3 clinical trial of arimoclomol in ALS and our Phase 2/3 clinical trial of arimoclomol in sIBM.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly changing technologies, competition and a strong emphasis on intellectual property. We are aware of several large and specialty pharmaceutical and biopharmaceutical companies that have developed or are focused on developing treatments for NPC, ALS, sIBM and neurological Gaucher disease. We may also face competition from government agencies, academic research institutions and public and private research institutions with a variety of therapeutic approaches to NPC, ALS, sIBM and neurological Gaucher disease.

Many of our potential competitors may have significantly greater financial resources, a more established presence in the market, and more expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more

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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 potential competitors may also compete with us in recruiting and retaining top qualified scientific, sales, marketing and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

The key competitive factors affecting the success of arimoclomol are likely to be its efficacy, safety, convenience, price, commercialization capabilities, the level of generic competition and the availability of reimbursement from government and other third-party payors.

A number of large pharmaceutical and biotechnology companies that currently market and sell drugs are pursuing the development of therapies in the fields in which we are interested. Our commercial opportunity for our product candidate could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, less expensive, more convenient or easier to administer, or have fewer or less severe side effects, than any products that we may develop. Our competitors also may obtain FDA, EMA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

Treatment Options for NPC

The majority of current treatment options for NPC are only directed towards the specific symptoms apparent in each individual.

We consider our most direct competitor with respect to NPC to be Zavesca (miglustat), which was originally developed by Actelion Pharmaceuticals and is now owned by Johnson & Johnson, which is also available as a generic product in several countries and is currently approved for the treatment of NPC. Miglustat has not been approved by the FDA for treatment of NPC, but it is approved for the treatment of Gaucher Type I disease in the United States. For the treatment of NPC, it is approved only in Europe, Canada, Australia, New Zealand, and several countries in Asia and South America as Zavesca and in Japan as Brazaves.

Studies are currently being performed to test the safety and efficacy of other treatment options, including the following:

- Adrabetadex (VTS-270), which has been evaluated in a Phase 2b/3 clinical trial by Mallinckrodt Pharmaceuticals. In June 2019, Mallinckrodt Pharmaceuticals communicated that the Phase 2/3 top-line results did not meet statistical significance ($p=0.55$). This product candidate has received orphan drug designation by both the FDA and EMA.
- Trappsol is being evaluated in a Phase 1/2a clinical trial by Cyclo Therapeutics. This product candidate has received orphan drug designation by both the FDA and EMA.
- IB1001 is being evaluated in a Phase 2 clinical trial by IntraBio. This product candidate has received orphan drug designation by both the FDA and EMA and fast track designation by the FDA.
- ESB1609 is being evaluated in a Phase 1 clinical trial by E-scape Bio.

Treatment Options for ALS

We consider our most direct competing products with respect to ALS to be Rilutek (riluzole) and Radicava (edaravone). Until recently, the only pharmaceutical product used for modifying ALS was Rilutek,

developed by Sanofi, which was the first drug to be approved by the FDA for the treatment of ALS more than 20 years ago and is now available in oral generic tablets as well as branded liquid and film formulations. In May 2017, the FDA approved Radicava, developed by Mitsubishi Tanabe Pharma America, which is administered through chronic cycles of 14-days of intravenous infusions. Clinical trial data have demonstrated that patients receiving Radicava for six months experienced significantly less decline in physical function compared to placebo. A clinical trial of oral Radicava has recently been initiated. Radicava has an indicated cost of \$1,000 for each infusion, and the ALS Association has estimated an annual treatment cost of \$146,000. A MAA for Radicava was filed by Mitsubishi Tanabe in Europe in 2018, but was subsequently withdrawn in May 2019.

In addition to the current treatment options for ALS, a number of pharmaceutical product candidates are being developed to treat ALS, including (i) levosimendan (Orion Pharma), a calcium channel sensitizer approved in many countries outside of the United States for treatment of acutely decompensated heart failure, (ii) NurOwn (Brainstorm Therapeutic), a mesenchymal stem cell treatment, (iii) BIIB067/tofersen (Biogen), an antisense oligonucleotide therapy of SOD1-ALS. Each of these product candidates are currently undergoing Phase 3 clinical development, (iv) oral edaravone (Mitsubishi Tanabe), an oral version of currently approved IV formulation, and (v) Ultomiris (ravulizumab; Alexion), a long-acting C5 inhibitor. In addition, there are planned Phase 3 clinical trials for (i) Masitinib (AB Science), a tyrosine kinase inhibitor used for mast cell tumors and (ii) reldesemtiv (Cytokinetics), a fast skeletal muscle troponin activator. The Phase 2 trial of reldesemtiv did not achieve statistical significance for its primary efficacy endpoint.

Treatment Options for sIBM

We are not aware of any therapeutic agent that has shown efficacy in preventing, halting or reversing the progression of sIBM and therefore, no drugs have been approved for sIBM. In particular, the disorder has not shown to respond to conventional therapies for autoimmune disorders, such as corticosteroids or immunosuppressive drugs. Therefore, the standard treatment option for sIBM consists only of supportive therapy such as physical, speech and occupational therapy. We also do not expect any therapies to be approved for sIBM in the near future.

Treatment Options for Gaucher Disease

There are currently no treatments for neurological symptoms of Gaucher disease. There are treatments for Gaucher Type 1 and these have been approved based on their ability to improve the systemic features of Gaucher disease. None of them are approved for treatment of Gaucher disease type 2 and 3. The two types of treatment currently available for patients with Gaucher Type 1 disease include: ERT, such as Cerezyme (Sanofi), Elelyso (Pfizer) and Vpriv (Shire); and SRT using Zavesca or Cerdelga (Sanofi).

In addition to ERT and SRT, there are a few other advanced clinical programs for the treatment of Gaucher disease, including:

- Genzyme (a Sanofi subsidiary) is currently evaluating the combined use of two agents in an ongoing open-label Phase 2 clinical trial with a target enrollment of 10 patients with Gaucher disease Type 3. The patients received combination treatment with GZ/SAR 402671 (venglustat, Sanofi), a SRT in combination with the marketed ERT Cerezyme (imiglucerase, Genzyme).
- Tottori University Hospital and Shire (a Takeda subsidiary) have registered an open-label, Phase 2/3 clinical trial in the Japan clinical trial registry, evaluating the efficacy and safety of ambroxol hydrochloride, an over-the-counter antitussive first registered in 1978, in patients with neuronopathic Gaucher disease.
- AVROBIO Inc. is sponsoring an ongoing open-label, non-randomised Phase 1/2 clinical trial Lentiviral Vector Gene Therapy AVR-RD-02 for subjects with Gaucher disease Type 1.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local levels, and in other countries, extensively regulate, among other things, the research, development, testing, manufacture, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, import and export of pharmaceutical products, such as those we are developing. The processes for obtaining regulatory approvals in the United States and other countries, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

United States Government Regulation

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations and guidance. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and non-U.S. statutes, regulations and guidance requires the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the drug development process, including preclinical and clinical testing, the approval process or post-approval process, may subject an applicant to delays in conducting the preclinical study or clinical trial, regulatory review, approval, a variety of administrative or judicial sanctions, such as the FDA's refusal to approve a pending NDA, other applications, license suspension or revocation, withdrawal of an approval, imposition of a clinical hold, issuance of warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, civil or criminal investigations brought by the FDA, the DOJ and other government entities, including state agencies and associated civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice regulations;
- completion of the manufacture, under cGMP conditions, of the drug substance and drug product that the sponsor intends to use in clinical trials along with required analytical and stability testing;
- submission to the FDA of an investigational new drug, or IND, application for clinical trials, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, at each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled clinical trials, in accordance with good clinical practice, or GCP, requirements to establish the safety, potency, purity and efficacy of the proposed drug for each proposed indication;
- payment of user fees;
- preparation and submission to the FDA of an NDA requesting marketing for one or more proposed indications, including submission of detailed information on the manufacture and composition of the product in clinical development and proposed labelling;
- satisfactory completion of an FDA advisory committee review, if applicable;

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- satisfactory completion of an FDA inspection of the manufacturing facility or facilities, including those of third parties at which the product, or components thereof, are produced to assess compliance with cGMP requirements, and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- satisfactory completion of an FDA inspection of selected clinical sites to assure compliance with GCPs and the integrity of the clinical data;
- FDA review and approval of the NDA; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and any post-approval studies or other post-marketing commitments required by the FDA.

Preclinical Studies

Preclinical 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 preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND is an exemption from the FDCA that allows an unapproved product candidate to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer such investigational product to humans. 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. If the FDA raises concerns or questions either during this initial 30-day period, or at any time during the IND process, it may choose to impose a partial or complete clinical hold. Clinical holds are imposed by the FDA whenever there is concern for patient safety and may be a result of new data, findings, or developments in clinical, preclinical, and/ or chemistry, manufacturing, and controls. This order issued by the FDA would delay either a proposed clinical trial or cause suspension of an ongoing trial, until all outstanding concerns have been adequately addressed and the FDA has notified the company that investigations may proceed. This could cause significant delays or difficulties in completing our planned clinical trial or future clinical trials in a timely manner.

Expanded Access to an Investigational Drug for Treatment Use

Expanded access, sometimes called "compassionate use," is the use of investigational products outside of clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. The rules and regulations related to expanded access are intended to improve access to investigational products for patients who may benefit from investigational therapies. FDA regulations allow access to investigational products under an IND by the company or the treating physician for treatment purposes on a case-by-case basis for: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings); intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or treatment IND application.

When considering an IND application for expanded access to an investigational product with the purpose of treating a patient or a group of patients, the sponsor and treating physicians or investigators will determine suitability when all of the following criteria apply: patient(s) have a serious or immediately life

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threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context or condition to be treated; and the expanded use of the investigational drug for the requested treatment will not interfere initiation, conduct, or completion of clinical investigations that could support marketing approval of the product or otherwise compromise the potential development of the product.

There is no obligation for a sponsor to make its drug products available for expanded access; however, as required by the 21st Century Cures Act passed in 2016, if a sponsor has a policy regarding how it responds to expanded access requests, it must make that policy publicly available. Although these requirements were rolled out over time, they have now come into full effect. This provision requires drug companies to make publicly available their policies for expanded access for individual patient access to products intended for serious diseases. Sponsors are required to make such policies publicly available upon the earlier of initiation of a Phase 2 or Phase 3 clinical trial; or 15 days after the investigational drug receives designation as a breakthrough therapy, fast track product, or regenerative medicine advanced therapy.

In addition, on May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a manufacturer to make its investigational products available to eligible patients as a result of the Right to Try Act.

Clinical Trials

Clinical trials involve the administration of the investigational new drug to human subjects, including healthy volunteers or patients with the disease or condition to be treated, under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, inclusion and exclusion criteria, 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.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. When a foreign clinical trial is not conducted under an IND, the sponsor must ensure that the trial complies with certain regulatory requirements of the FDA in order to use the clinical trial as support for an IND or application for marketing approval. Specifically, the FDA requires that such clinical trials be conducted in accordance with GCP, including review and approval by an independent ethics committee and informed consent from participants. The GCP requirements encompass both ethical and data integrity standards for clinical trials. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign trials are conducted in a manner comparable to that required for clinical trials in the United States.

In addition, an 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, and the IRB must continue to oversee the clinical trial while it is being conducted. The IRB will consider, among other things, clinical trial design, patient informed consent, ethical factors, the safety of human subjects, and the possible liability of the institution. An IRB must operate in compliance with FDA regulations. The FDA, the IRB, or the clinical trial sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the clinical trial is not being conducted in accordance with FDA requirements or that the participants are being exposed to an

unacceptable health risk. Clinical testing also must satisfy extensive GCP rules and the requirements for informed consent. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined. Additional studies may be required after approval.

- Phase 1: The drug is initially introduced into a limited number of 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 initial indication of its effectiveness.
- Phase 2: The drug typically 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. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 2 clinical trials. Once Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile, it proceeds to Phase 3 clinical trials.
- Phase 3: The drug 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 safety and efficacy 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. A well-controlled, statistically robust Phase 3 trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a drug; such Phase 3 studies are referred to as “pivotal.”
- Phase 4: In some cases, the FDA may conditionally approve an NDA for a product candidate on the sponsor’s agreement to conduct additional clinical trials after NDA approval. In other cases, a sponsor may voluntarily conduct additional clinical trials post-approval to gain more information about the drug. Such post-approval trials are typically referred to as Phase 4 clinical trials.

Progress reports detailing the results of the clinical trials must be submitted, at least annually, to the FDA, and more frequently if serious adverse events, or SAEs, occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB’s requirements, or if the drug has been associated with unexpected serious harm to patients.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. 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. Additionally, 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.

Compliance with cGMP Requirements

Before approving an NDA, 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 full compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The Public Health Service Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. Manufacturers and others involved in the manufacture and distribution of products must also register their establishments with the FDA and certain state agencies. Both domestic and foreign manufacturing establishments must register and provide additional information to the FDA upon their initial participation in the manufacturing process. Any product manufactured by or imported from a facility that has not registered, whether foreign or domestic, is deemed misbranded under the FDCA. Establishments may be subject to periodic unannounced inspections by government authorities to ensure compliance with cGMPs and other laws. Inspections must follow a “risk-based schedule” that may result in certain establishments being inspected more frequently. Manufacturers may also have to provide, on request, electronic or physical records regarding their establishments. Delaying, denying, limiting, or refusing inspection by the FDA may lead to a product being deemed to be adulterated.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the preclinical 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 requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the PDUFA guidelines that are currently in effect, the FDA has a goal of ten months to review and act on a standard NDA and six months to review and act on a priority NDA, measured from the date of “filing” of a standard NDA for a NME. This review typically takes eight months from the date the NDA is submitted to the FDA because the FDA has approximately two months to make a “filing” decision.

In addition, under the Pediatric Research Equity Act of 2003, as amended and reauthorized, certain NDAs or supplements to an NDA must contain data that are adequate to assess the safety and effectiveness of the drug 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. Sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests, and other information required by regulation. The applicant, the FDA, and the FDA’s internal review committee must then review the information submitted, consult with each other, and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

For products intended to treat a serious or life-threatening disease or condition, the FDA must, upon the request of an applicant, meet to discuss preparation of the initial pediatric study plan or to discuss deferral or waiver of pediatric assessments. In addition, FDA will meet early in the development process to discuss pediatric study plans with sponsors and FDA must meet with sponsors by no later than the end-of-the Phase 1 meeting for serious or life-threatening diseases and by no later than 90 days after FDA’s receipt of the study plan.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in the Food and Drug Administration Safety and Innovation Act. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

The FDA also may require submission of a REMS plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

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The FDA conducts a preliminary review of all NDAs 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 NDA 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 NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug 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 NDA, 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 NDA, the FDA will typically inspect one or more clinical trial sites to assure compliance with GCP requirements.

The FDA generally accepts data from foreign clinical trials in support of an NDA if the trials were conducted under an IND. If a foreign clinical trial is not conducted under an IND, the FDA nevertheless may accept the data in support of an NDA if the study was conducted in accordance with GCP requirements and the FDA is able to validate the data through an on-site inspection, if deemed necessary. Although the FDA generally requests that marketing applications be supported by some data from domestic clinical studies, the FDA may accept foreign data as the sole basis for marketing approval if the foreign data are applicable to the U.S.

The testing and approval process for an NDA requires substantial time, effort and financial resources, and takes several years to complete. Data obtained from preclinical and clinical testing are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval of an NDA on a timely basis, or at all.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing, manufacturing or formulation modifications or other changes in order for the 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 drug 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 that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing

changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

The Hatch-Waxman Amendments

As an alternative path to FDA approval for modifications to formulations or uses of drugs previously approved by the FDA, an applicant may submit an NDA under Section 505(b)(2) of the FDCA. Section 505(b)(2) was enacted as part of the Hatch-Waxman Amendments. A Section 505(b)(2) NDA is an application that contains full reports of investigations of safety and effectiveness, but where at least some of the information required for approval comes from studies not conducted by, or for, the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. This type of application permits reliance for such approvals on literature or on an FDA finding of safety, effectiveness or both for an approved drug product. As such, under Section 505(b)(2), the FDA may rely, for approval of an NDA, on data not developed by the applicant. Therefore, if we can satisfy the conditions required for a Section 505(b)(2) NDA submission, it may eliminate the need for us to conduct some of the preclinical studies or clinical trials for a product candidate that might otherwise have been required, although the review time is not shortened. The FDA may then approve the new product candidate for the new indication sought by the 505(b)(2) applicant.

Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA certain patents whose claims cover the applicant's product. Upon approval of an NDA, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, known as the Orange Book. Any applicant who files an Abbreviated New Drug Application (ANDA) seeking approval of a generic equivalent version of a drug listed in the Orange Book or a 505(b)(2) NDA referencing a drug listed in the Orange Book must certify, for each patent listed in the Orange Book for the referenced drug, to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA, (2) such patent has expired, (3) the date on which such patent expires or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. The fourth certification described above is known as a paragraph IV certification. A notice of the paragraph IV certification must be provided to each owner of the patent that is the subject of the certification and to the holder of the approved NDA to which the ANDA refers. The applicant may also elect to submit a "section viii" statement certifying that its proposed label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. This section viii statement does not require notice to the patent holder or NDA owner. There might also be no relevant patent certification.

If the reference NDA holder and patent owners assert a patent challenge directed to one of the Orange Book listed patents within 45 days of the receipt of the paragraph IV certification notice, the FDA is prohibited from approving the application until the earlier of 30 months from the receipt of the paragraph IV certification expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the applicant. Even if the 45 days expire, a patent infringement lawsuit can be brought and could delay market entry, but it would not extend the FDA-related 30-month stay of approval.

The ANDA or 505(b)(2) application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the branded reference drug has expired. Specifically, the holder of the NDA for the listed drug may be entitled to a period of non-patent exclusivity, during which the FDA cannot approve an ANDA or 505(b)(2) application that relies on the listed drug. For example, a pharmaceutical manufacturer may obtain five years of non-patent exclusivity upon NDA approval of an NCE, which is a drug that contains an active moiety that has not been approved by FDA in any other NDA. An "active moiety" is defined as the molecule or ion responsible for the drug substance's physiological or pharmacologic action.

During the five-year exclusivity period, the FDA cannot accept for filing any ANDA seeking approval of a generic version of that drug or any 505(b)(2) NDA for the same active moiety and that relies on the FDA's findings regarding that drug, except that FDA may accept an application for filing after four years if the follow-on applicant makes a paragraph IV certification. This exclusivity period may be extended by an additional six months if certain requirements are met to qualify the product for pediatric exclusivity, including the receipt of a written request from the FDA that the NDA holder conduct certain pediatric studies, the submission of study reports from such studies to the FDA after receipt of the written request and satisfaction of the conditions specified in the written request.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000, there is no reasonable expectation that sales of the drug in the United States will be sufficient to offset the costs of developing and making the drug available in the United States. Orphan drug designation must be requested before submitting an NDA. A product becomes an orphan when it receives orphan drug designation from the Office of Orphan Products Development at the FDA based on acceptable confidential requests made under the regulatory provisions. The product must then go through the review and approval process like any other product. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. If the FDA approves a sponsor's marketing application for a designated orphan drug for use in the rare disease or condition for which it was designated, the sponsor is eligible for tax credits and a seven-year period of marketing exclusivity, during which the FDA may not approve another sponsor's marketing application for a drug with the same active moiety and intended for the same use or indication as the approved orphan drug, except in limited circumstances, such as if a subsequent sponsor demonstrates its product is clinically superior. During a sponsor's orphan drug exclusivity period, competitors, however, may receive approval for drugs with different active moieties for the same indication as the approved orphan drug, or for drugs with the same active moiety as the approved orphan drug, but for different indications. Orphan drug exclusivity could block the approval of one of our products for seven years if a competitor obtains approval for a drug with the same active moiety intended for the same indication before we do, unless we are able to demonstrate that grounds for withdrawal of the orphan drug exclusivity exist, or that our product is clinically superior. Further, if a designated orphan drug receives marketing approval for an indication broader than the rare disease or condition for which it received orphan drug designation, it may not be entitled to exclusivity.

The period of exclusivity begins on the date that the marketing application is approved by the FDA and applies only to the indication for which the product has been designated. The FDA may approve a second application for the same product for a different use or a second application for a clinically superior version of the product for the same use. The FDA cannot, however, approve the same product made by another manufacturer for the same indication during the market exclusivity period unless it has the consent of the sponsor or the sponsor is unable to provide sufficient quantities.

Special FDA Expedited Review and Approval Programs

The FDA has various programs, including fast track designation, accelerated approval, priority review, and breakthrough therapy designation, which are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures.

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To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. The FDA may review sections of the NDA for a fast track product 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, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

The FDA may give a priority review designation to drugs that are designed to treat serious conditions, and if approved, would provide a significant improvement in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. Under the current PDUFA agreement, these six and ten month review periods are measured from the “filing” date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for fast track designation may be considered appropriate to receive a priority review.

In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug 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, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Breakthrough therapy designation is for a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug 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 FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

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. We may explore some of these opportunities for our product candidate as appropriate.

Rare pediatric disease designation by FDA enables priority review voucher eligibility upon U.S. market approval of a designated drug for rare pediatric diseases. The rare pediatric disease-priority review voucher program is intended to encourage development of therapies to prevent and treat rare pediatric diseases. The voucher, which is awarded upon NDA approval to the sponsor of a designated rare pediatric disease can be sold or transferred to another entity and used by the holder to receive priority review for a future NDA submission, which reduces the FDA review time of such future submission from ten to six months.

Post-approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA and other government authorities, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of

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adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications, manufacturing changes or other labeling claims, are subject to further testing requirements and prior FDA review and approval. There also are continuing annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as application fees for supplemental applications with clinical data.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, including a boxed warning, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs 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, or 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 NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label, although physicians, in the practice of medicine, may prescribe approved drugs for unapproved indications. 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. However, companies may share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

Federal and State Fraud and Abuse, Data Privacy and Security, and Transparency Laws and Regulations

In addition to FDA restrictions on marketing of pharmaceutical products, federal and state healthcare laws and regulations restrict business practices in the biopharmaceutical industry. These laws may impact, among other things, our current and future business operations, including our clinical research activities, and proposed sales, marketing and education programs and constrain the business or financial arrangements and relationships with healthcare providers and other parties through which we market, sell and distribute our products for which we obtain marketing approval. These laws include anti-kickback and false claims laws and regulations, data privacy and security, and transparency laws and regulations, including, without limitation, those laws described below.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for or recommending the purchase, lease or order of any item or service reimbursable 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 between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting some common activities from prosecution, the exemptions 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 qualify for an exemption or safe harbor. 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.

A person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act or the civil monetary penalties statute, which imposes penalties against any person who is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

Federal false claims laws, including the federal civil False Claims Act, prohibits any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or 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. A claim includes “any request or demand” for money or property presented to the U.S. government. Pharmaceutical and other healthcare companies have been prosecuted under these laws for 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 products for unapproved, and thus non-reimbursable, uses.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created additional federal criminal statutes that prohibit, among other things, knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent

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statement in connection with the delivery of or payment for healthcare benefits, items or services. Also, many states 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.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, imposes specified requirements on certain types of individuals and entities relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to "business associates," defined as independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which are not pre-empted by HIPAA, differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, California recently enacted legislation that has been dubbed the first "GDPR-like" law in the United States. Known as the California Consumer Privacy Act, or CCPA, it creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA went into effect on January 1, 2020 and requires covered companies to provide new disclosures to California consumers, provide such consumers new ways to opt-out of certain sales of personal information, and allow for a new cause of action for data breaches. The CCPA could impact our business activities depending on how it is interpreted and exemplifies the vulnerability of our business to not only cyber threats but also the evolving regulatory environment related to personal data and protected health information.

The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding payments and transfers of value provided, as well as ownership and investment interests held, during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists and certified nurse-midwives.

We may also be subject to state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, as well as state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, marketing expenditures or drug pricing. In addition, we may be subject to state and local laws that require the registration of pharmaceutical sales representatives.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to significant penalties, including criminal, civil and administrative penalties, damages, fines, imprisonment, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, contractual damages, reputational harm, diminished profits and future earnings,

disgorgement, exclusion from participation in government healthcare programs and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, 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 transfers of value to healthcare professionals.

Patent Term Restoration and Extension

In the United States, a patent claiming a new drug product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. Assuming grant of the patent for which the extension is sought, the restoration period for a patent covering a product is typically one-half the time between the effective date of the investigational new drug application, or IND, involving human beings and the submission date of the NDA, plus the time between the submission date of the NDA and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The U.S. Patent and Trademark Office reviews and approves the application for any patent term extension in consultation with the FDA.

Coverage and Reimbursement

The future commercial success of our product candidate or any of our collaborators' ability to commercialize any approved product candidate successfully will depend in part on the extent to which governmental payor programs at the federal and state levels, including Medicare and Medicaid, private health insurers and other third-party payors provide coverage for and establish adequate reimbursement levels for our product candidate. Government health administration authorities, private health insurers and other organizations generally decide which drugs they will pay for and establish reimbursement levels for healthcare. In particular, in the United States, private health insurers and other third-party payors often provide reimbursement for products and services based on the level at which the government, through the Medicare or Medicaid programs, provides reimbursement for such treatments. In the United States, the European Union, or EU, and other potentially significant markets for our product candidate, government authorities and third-party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which often has resulted in average selling prices lower than they would otherwise be. Further, the increased emphasis on managed healthcare in the United States and on country and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical coverage and reimbursement policies and pricing in general.

Third-party payors are increasingly imposing additional requirements and restrictions on coverage and limiting reimbursement levels for medical products. For example, federal and state governments reimburse covered prescription drugs at varying rates generally below average wholesale price. These restrictions and limitations influence the purchase of healthcare services and products. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals.

Our product candidate may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. 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 drug development. Legislative proposals to reform healthcare or reduce costs under government insurance programs may result in lower reimbursement for our products and product candidate or exclusion of our product candidate from coverage. The cost containment measures that healthcare payors and providers are instituting and any healthcare reform could significantly reduce our revenues from the sale of any approved product candidates. We cannot provide any assurances that we will be able to obtain and maintain third-party coverage or adequate reimbursement for our product candidate in whole or in part.

Impact of Healthcare Reform on our Business

The United States and some foreign jurisdictions are considering enacting or have enacted a number of additional legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our product candidate profitably, if approved. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts, which include major legislative initiatives to reduce the cost of care through changes in the healthcare system, including limits on the pricing, coverage, and reimbursement of pharmaceutical and biopharmaceutical products, especially under government-funded health care programs, and increased governmental control of drug pricing.

There have been several U.S. government initiatives over the past few years to fund and incentivize certain comparative effectiveness research, including creation of the Patient-Centered Outcomes Research Institute under the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA. It is also possible that comparative effectiveness research demonstrating benefits in a competitor's product could adversely affect the sales of our product candidate. If third-party payors do not consider our product candidate to be cost-effective compared to other available therapies, they may not cover our product candidate, once approved, as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our product on a profitable basis.

The ACA became law in March 2010 and substantially changed the way healthcare is financed by both governmental and private insurers. Among other measures that may have an impact on our business, the ACA established an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; a new Medicare Part D coverage gap discount program; and a new formula that increases the rebates a manufacturer must pay under the Medicaid Drug Rebate Program. Additionally, the ACA extended manufacturers' Medicaid rebate liability, expanded eligibility criteria for Medicaid programs, and expanded entities eligible for discounts under the Public Health Service pharmaceutical pricing program. There have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the current presidential administration to repeal or replace certain aspects of the ACA, and we expect such challenges and amendments to continue. Since January 2017, President Trump has signed Executive Orders designed to delay the implementation of any certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. One Executive Order directed federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The second Executive Order terminated the cost-sharing subsidies that reimburse insurers under the ACA. Several state Attorneys General filed suit to stop the administration from terminating the subsidies, but their request for a restraining order was denied by a federal judge in California on October 25, 2017. In addition, CMS has recently proposed regulations that would give states greater flexibility in setting benchmarks for insurers in the individual

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and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces. In December 2018, CMS published a new final rule permitting further collections and payments to and from certain ACA qualified health plans and health insurance issuers under the ACA risk adjustment program in response to the outcome of the federal court litigation regarding the method CMS uses to determine this risk adjustment. On April 27, 2020, the U.S. Supreme Court reversed the Federal Circuit decision that previously upheld Congress' denial of \$12 billion in ACA risk corridor payments to certain ACA qualified health plans and health insurance issuers. The full effects of this gap in reimbursement on third-party payors, the viability of the ACA marketplace, providers, and potentially our business, are not yet known.

While Congress has not passed comprehensive repeal legislation, bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of 2017, or TCJA, includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." On December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseparable feature of the ACA, and therefore because the mandate was repealed as part of the TCJA, the remaining provisions of the ACA are invalid as well. The current presidential administration and CMS have both stated that the ruling will have no immediate effect, and on December 30, 2018 the same judge issued an order staying the judgment pending appeal. The current presidential administration recently represented to the Court of Appeals considering this judgment that it does not oppose the lower court's ruling. On July 10, 2019, the Court of Appeals for the Fifth Circuit heard oral argument in this case. On December 18, 2019, that court affirmed the lower court's ruling that the individual mandate portion of the ACA is unconstitutional and it remanded the case to the district court for reconsideration of the severability question and additional analysis of the provisions of the ACA. On March 2, 2020, the U.S. Supreme Court granted the petitions for writs of certiorari to review this case, and has allotted one hour for oral arguments, which are expected to occur in the fall. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

Additionally, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminates the health insurer tax. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amended the ACA, effective January 1, 2019, to increase from 50% to 70% the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole."

In addition, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal and proposed and enacted state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the current presidential administration's budget proposal for fiscal year 2021 includes a \$135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. The current presidential administration previously released a blueprint for action, the administration indicated that the Department of Health and Human Services, or HHS, will take steps to end the gaming of regulatory and patent processes by drug makers to unfairly protect monopolies; advance biosimilars and generics to boost price competition; evaluate the inclusion of prices in drug makers' ads to enhance price competition; speed access to and lower the cost of new drugs by clarifying policies for sharing information between insurers and drug makers; avoid excessive pricing by relying more on value-based pricing by expanding outcome-based payments in Medicare and Medicaid; work to give Part D plan sponsors more negotiation power with drug makers; examine which Medicare Part B drugs could be negotiated for a lower price by Part D plans, and improving the design of the Part B Competitive Acquisition Program; update Medicare's drug-pricing dashboard to increase transparency;

prohibit Part D contracts that include “gag rules” that prevent pharmacists from informing patients when they could pay less out-of-pocket by not using insurance; and require that Part D plan members be provided with an annual statement of plan payments, out-of-pocket spending, and drug price increases. HHS has solicited feedback on some of these measures and has implemented others under its existing authority. For example, in May 2019, CMS issued a final rule to allow Medicare Advantage plans the option to use step therapy for Part B drugs beginning January 1, 2020. This final rule codified CMS’s policy change that was effective January 1, 2019. On March 10, 2020, the current presidential administration sent “principles” for drug pricing to Congress, calling for legislation that would, among other things, cap Medicare Part D beneficiary out-of-pocket pharmacy expenses, provide an option to cap Medicare Part D beneficiary monthly out-of-pocket expenses, and place limits on pharmaceutical price increases. In addition, on December 23, 2019, the current presidential administration published a proposed rulemaking that, if finalized, would allow states or certain other non-federal government entities to submit importation program proposals to FDA for review and approval. Applicants would be required to demonstrate their importation plans pose no additional risk to public health and safety and will result in significant cost savings for consumers. At the same time, FDA issued draft guidance that would allow manufacturers to import their own FDA-approved drugs that are authorized for sale in other countries (multi-market approved products). While some of these and other proposed measures will require additional authorization to become effective, Congress and the current presidential administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

At the state level, legislatures are increasingly 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. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

As a result of the ACA, Medicare payments are increasingly tied to quality of care and value measures, and reporting of related data by providers such as physicians and hospitals. So called “value based reimbursement” measures may present challenges as well as potential opportunities for biopharmaceutical manufacturers. Medicare incentives for providers meeting certain quality measures may ultimately prove beneficial for manufacturers that are able to establish that their products may help providers to meet such measures. However, manufacturers’ ability to market their drug products based on quality or value is highly regulated and not always permissible. In addition, potentially decreased Medicare reimbursement to those providers that fail to adequately comply with quality reporting requirements could translate to decreased resources available to purchase products and may negatively impact marketing or utilization of our product candidate if it is approved for marketing. We cannot predict at this time what impact, if any, the longer-term shift towards value based reimbursement will have on our product candidate in either the Medicare program, or in any other third-party payor programs that may similarly tie payment to provider quality.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In August 2011, the Budget Control Act of 2011 was enacted, which, among other things, included aggregate reductions to Medicare payments to providers of 2% per fiscal year, which began in 2013 and, following passage of subsequent legislation, including the BBA, will continue through 2030 unless additional Congressional action is taken. The Coronavirus Aid, Relief and Economic Security Act, which was signed into law in March 2020 and is designed to provide financial support and resources to individuals and businesses affected by the COVID-19 pandemic, suspended the 2% Medicare sequester from May 1, 2020 through December 31, 2020, and extended the sequester by one year, through 2030. In January 2013, the American Taxpayer Relief Act of 2012 was enacted and, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These and

other healthcare reform initiatives may result in additional reductions in Medicare and other healthcare funding. For example, it is possible that additional governmental action is taken to address the COVID-19 pandemic.

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.

European Economic Area Regulation

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety, and efficacy, and governing, among other things, clinical trials, marketing authorization, commercial sales, and distribution of products. Whether or not it obtains FDA approval for a product, an applicant will need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions.

Clinical Trial Approval

Pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on GCP, in order to undertake a clinical trial in a European Union member state, an applicant must obtain approval from the competent national authority of the European Union member state in which the clinical trial is to be conducted, or in multiple member states if the clinical trial is to be conducted in a number of member states. Furthermore, the applicant may only start a clinical trial at a specific site after the competent ethics committee has issued a favorable opinion. The clinical trial application must be accompanied by an IMP dossier with supporting information prescribed by Directive 2001/20/EC and Directive 2005/28/EC and corresponding national laws of the member states and further detailed in applicable guidance documents.

In April 2014, the European Union adopted a new Clinical Trials Regulation (EU) No 536/2014, but it is not yet applicable in the European Union. The new legislation, which will be directly applicable in all European Union member states, aims to streamline the approval of clinical trials in the European Union by applying consistent rules and harmonising the approvals process throughout the European Union. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure via a single-entry point facilitating a harmonized assessment across multiple member states. The timing of implementation of the new Clinical Trials Regulation will be dependent on the development and launch of a fully functional clinical trials portal and database, which would be confirmed by an independent audit. The new legislation will come into effect six months after the European Commission publishes a confirmation of full functionality of the clinical trials information system. The website indicated that the audit was expected to commence in December 2020.

Parties conducting certain clinical trials in the European Union must, as in the United States, post clinical trial information at the EudraCT website: <https://eudract.ema.europa.eu>.

PRIME Designation in the EU

In March 2016, the EMA launched an initiative to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRiority MEDicines, or PRIME, scheme is intended to encourage drug development in areas of unmet medical need and provides accelerated assessment of products that may offer a major therapeutic advantage over existing treatments or benefit patients without treatment options, reviewed under the centralized procedure. Products from small and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue

with the EMA, frequent discussions on clinical trial designs and other development program elements, and accelerated MAA assessment once a dossier has been submitted. Importantly, a dedicated EMA contact and rapporteur from the Committee for Human Medicinal Products, or CHMP, or Committee for Advanced Therapies are appointed early in the PRIME scheme. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies.

Marketing Authorization

To obtain a marketing authorization for a product in the European Union, an applicant must submit a marketing authorization, or MA, either through the centralized procedure administered by the EMA or one of the procedures administered by the competent authorities in European Union Member States. A marketing authorization may be granted only to an applicant established in the European Union. An MA may be granted in one of three ways:

The Community MA, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, of the EMA, and which is valid throughout the entire territory of the European Economic Area, or EEA. Pursuant to Regulation (EC) No. 726/2004, the Centralized Procedure is mandatory for certain types of products, such as biotechnology medicinal products, orphan medicinal products, and medicinal products containing a new active substance indicated for the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, autoimmune and viral diseases. The Centralized Procedure is also optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the European Union.

Under the centralized procedure, the CHMP established at the EMA is responsible for conducting an initial scientific assessment of a product. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MA is 210 days, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Accelerated evaluation may be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation. If the CHMP accepts such a request, the time limit of 210 days will be reduced to 150 days, but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that it is no longer appropriate to conduct an accelerated assessment.

- Under the Decentralized Procedure, or DCP, MAs are available for medicinal products not falling within the mandatory scope of the Centralized Procedure. An identical dossier, including a draft summary of the product characteristics, or SmPC, and draft labeling and package leaflet, is submitted to the competent authorities of each of the member states of the EEA in which the MA is sought, one of which is selected by the applicant as the reference member state, or RMS. The competent authority of the RMS prepares a draft assessment report, including any proposed revisions to the draft SmPC, draft labeling and package leaflet, which is sent to the other member states (referred to as the concerned member states, or CMS) for their approval. If the CMSs raise no objections, based on a potential serious risk to public health, to the assessment, SmPC, labeling, or package leaflet proposed by the RMS, the product is subsequently granted a national MA in each of the involved member states (i.e., in the RMS and the selected CMS).
- National Procedure MAs, which are issued by a single competent authority of the member states of the EEA and only covers their respective territory, are also available for products not falling within the mandatory scope of the Centralized Procedure. Once a product has been authorized for marketing in a Member State of the EEA through the National Procedure, this National Procedure MA can also be recognized in other member states through the Mutual Recognition Procedure to

enable recognition of the national MA in other selected EEA member states. Similarly to the DCP, if the CMSs raise no objections, based on a potential serious risk to public health, to the assessment of the RMS, the product is subsequently granted a national MA in each of the involved CMSs.

Manufacturers must demonstrate the quality, safety, and efficacy of their products to the EMA, which provides an opinion regarding the MA. The European Commission grants or refuses the MA in light of the opinion delivered by the EMA.

Orphan Drug Designation and Exclusivity

In the European Union, Orphan Drug designation was introduced to stimulate the development of orphan drugs in the European Union. In the European Union, the Committee for Orphan Medicinal Products is responsible for the scientific examination of applications leading to the designation of an Orphan Medicinal Product. Such designation is reassessed at the time a marketing authorization is granted. In the European Union, a medicinal product may be designated as an Orphan Medicinal Product if its sponsor can establish that the prevalence of the condition in the European Union is not more than five in 10,000 or that it is unlikely that marketing the medicinal product in the European Union, without incentives, would generate sufficient return to justify the necessary investment needed for its development. In the European Union there is a further requirement that the drug is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition for which there exists no satisfactory method of diagnosis, prevention or treatment or, if such method exists, that the drug will be of significant benefit as compared to existing treatments to those affected by the condition. An orphan drug designation provides a number of benefits, including fee reductions, regulatory assistance, and the possibility to apply for a centralized European Union marketing authorization. If a product is granted Orphan Medical Product status, it is eligible for a 10-year exclusive marketing period in the European Union. During this market exclusivity period, neither the EMA nor the European Commission or the member states can accept an application or grant a marketing authorization for the same therapeutic indication in respect of a “similar medicinal product.” A “similar medicinal product” is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The period can be reduced to six years in the European Union if a product no longer meets the criteria for orphan drug designation or if the product is sufficiently profitable so that market exclusivity is no longer justified. In the European Union, orphan exclusivity may also be extended for an additional two years (for a maximum of 12 years of orphan exclusivity), if the product is approved on the basis of a dossier that includes pediatric clinical trial data generated in accordance with an approved pediatric investigation plan.

Regulatory Data Protection in the European Union

In the European Union, new drugs approved on the basis of a complete independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Regulation (EC) No 726/2004, as amended, and Directive 2001/83/EC, as amended. Data exclusivity prevents regulatory authorities in the European Union from referencing the innovator’s data to assess a generic (abbreviated) application for a period of eight years. During the additional two-year period of market exclusivity, a generic MA can be submitted, and the innovator’s data may be referenced, but no generic medicinal product can be marketed until the expiration of the market exclusivity. The overall ten-year period may be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new indications which, during the scientific evaluation prior to authorization, is held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new drug so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained a marketing authorization based on an MA which does not reference the existing MA holder’s data.

General Data Protection Regulation

The collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the EU, including personal health data, is subject to the EU General Data Protection Regulation, or GDPR, which became effective on May 25, 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third-party processors. The GDPR also imposes strict rules on the transfer of personal data to countries outside the EU, including the U.S., and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. Compliance with the GDPR will be a rigorous and time-intensive process that may increase the cost of doing business or require companies to change their business practices to ensure full compliance.

Patent Term Extensions in the European Union and Other Jurisdictions

The European Union also provides for patent term extension through SPCs. An SPC may extend the term of a patent for up to five years after its originally scheduled expiration date and can provide up to a maximum of fifteen years of overall marketing exclusivity for a drug. In certain circumstances, these periods may be extended for six additional months if pediatric exclusivity is obtained, which is described in detail below. Although SPCs are available throughout the European Union, sponsors must apply on a country-by-country basis. Similar patent term extension rights exist in certain other foreign jurisdictions outside the European Union.

Regulatory Requirements after Marketing Authorization

Following approval, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of the medicinal product. These include compliance with the European Union's stringent pharmacovigilance or safety reporting rules, pursuant to which post-authorization studies and additional monitoring obligations can be imposed. In addition, the manufacturing of authorized products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the EMA's good manufacturing practice requirements and comparable requirements of other regulatory bodies in the European Union, which mandate the methods, facilities, and controls used in manufacturing, processing and packing of drugs to assure their safety and identity. Finally, the marketing and promotion of authorized products, including industry-sponsored continuing medical education and advertising directed toward the prescribers of drugs and/or the general public, are strictly regulated in the European Union under Directive 2001/83EC, as amended.

Brexit and the Regulatory Framework in the United Kingdom

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. Following protracted negotiations, the United Kingdom left the European Union on January 31, 2020. Under the withdrawal agreement, there is a transitional period until December 31, 2020, which is extendable up to two years. During the Brexit transitional period, the United Kingdom will continue to be subject to the laws and obligations applicable to all European Union member states. However, future regulations that will apply in the United Kingdom following the transitional period (including financial laws and regulations, tax and free trade agreements, intellectual property rights, data protection laws, supply chain logistics, environmental, health and safety laws and regulations medicine licensing and regulations, immigration laws and employment laws), have yet to be addressed. If no trade agreement has been reached before the end of the transitional period, there may be significant market and economic disruption.

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Since the regulatory framework for pharmaceutical products in the United Kingdom covering quality, safety, and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales, and distribution of pharmaceutical products is derived from European Union directives and regulations, Brexit could materially impact the future regulatory regime that applies to products and the approval of product candidates in the United Kingdom. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, may result in a restriction or delay in our ability to seek regulatory approval in the United Kingdom for our product candidate, which could significantly and materially harm our business.

Furthermore, while the Data Protection Act of 2018 in the United Kingdom that “implements” and complements the GDPR, has achieved Royal Assent on May 23, 2018 and is now effective in the United Kingdom, it is still unclear whether transfer of data from the EEA to the United Kingdom will remain lawful under GDPR. During the period of “transition” (i.e., until December 31, 2020), EU law will continue to apply in the United Kingdom, including the GDPR, after which the GDPR will be converted into UK law. Beginning in 2021, the UK will be a “third country” under the GDPR. We may, however, incur liabilities, expenses, costs, and other operational losses under GDPR and applicable EU Member States and the United Kingdom privacy laws in connection with any measures we take to comply with them.

Other Healthcare Laws

Outside the United States and the EEA, our ability to market a product is contingent upon obtaining marketing authorization from the appropriate regulatory authorities. The requirements governing market authorization, pricing and reimbursement vary widely from country to country. In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our product candidate. Whether or not we obtain marketing approval for a drug in the United States or EEA, we would need to obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the drug in those countries. The approval process varies from country to country and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from and be longer than that required to obtain approval in the United States or EEA. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others.

Organization and Employees

We are located at Copenhagen Bio Science Park, Ole Maaløes Vej 3, 2200 Copenhagen N, Denmark. Our office in Copenhagen serves as our headquarters and focuses on coordination and execution of the drug development process and on the conduct of preclinical and clinical trials and administration. We have a wholly-owned subsidiary, Orphazyme US, Inc., with offices at 180 N. LaSalle Street, Suite 3475, Chicago, IL 60601. Our office in Illinois serves as the headquarters for our U.S. operations. As of June 30, 2020, we had 114 employees, most of whom are engaged in the development of strategies, design, planning, procurement and project management and execution of clinical trials and preclinical studies and regulatory matters.

Our History and Development

We were founded in 2009 with the objectives to develop new therapies for patients suffering from protein misfolding diseases with no or limited treatment options available. At inception, we were based on a scientific discovery on the function of HSPs by Thomas Kirkegaard Jensen, who currently serves as our Chief Scientific Officer, and Professor Marja Jäättelä, which was published in *Nature*. Since inception, we have

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translated certain of our scientific discoveries into a late stage clinical development program. A brief historical overview of the key milestones in our development is presented below:

- 2009** *We were founded to pursue the opportunity of developing new therapies based on the cell protective function of HSPs*
- 2010** *Our current Chief Scientific Officer and co-authors published scientific foundation of our company in Nature*
- We raised DKK 22 million (approximately \$4 million at the rate of \$1.00 to DKK 5.6183, which was the noon buying rate of the Federal Reserve Bank of New York on December 30, 2010) in a seed financing round (share issue) initiated in 2010. Novo Holdings and Sunstone Capital become shareholders*
- 2011** *We acquired arimoclomol and a portfolio of other molecules from the United States based biopharmaceutical company CytRx*
- We raised DKK 104 million (approximately \$18 million at the rate of \$1.00 to DKK 5.7303, which was the noon buying rate of the Federal Reserve Bank of New York on December 30, 2011) in a series A financing round initiated in 2011. Aescap Venture becomes shareholder*
- 2013** *EMA granted orphan drug designation to HSP70 for the treatment of NPC*
- 2014** *EMA granted orphan drug designation to arimoclomol for the treatment of NPC*
- We were awarded the Wellcome Trust Pathfinder Award in collaboration with Oxford University for the project “Regulation of the Heat Shock Response as a Treatment for Niemann-Pick Type C disease”*
- We received the EY Entrepreneur of the Year award in the Life Science category*
- 2015** *We raised DKK 150 million (approximately \$21 million at the rate of \$1.00 to DKK 6.8723, which was the noon buying rate of the Federal Reserve Bank of New York on December 31, 2015) in a series B financing round (share issue) initiated in 2015. Kurma Partners and Idinvest Partners become shareholders*
- FDA granted orphan drug designation to arimoclomol for the treatment of NPC*
- We initiated observational trial in NPC*
- 2016** *University College London and University of Kansas invested DKK 1.3 million as part of the sIBM collaboration*
- Preclinical and Phase 2 clinical data with arimoclomol as a potential for the treatment for sIBM was published*
- EMA granted orphan drug designation to arimoclomol for the treatment of sIBM*
- We and University of Miami announced successful Phase 2 trial of arimoclomol in SOD1-ALS patients. Data presented at the 27th International Symposium on ALS/MND in Dublin*
- Our current Chief Scientific Officer and co-authors published preclinical data demonstrating the potential of HSP70 and arimoclomol as a treatment for multiple LSDs, including NPC and Gaucher disease, in Science Translational Medicine*

FDA granted a fast track designation for the Phase 2/3 clinical trial with arimoclomol for the treatment of NPC

Dosing began in our Phase 2/3 clinical trial with arimoclomol for the treatment of NPC

2017 *We raised DKK 109 million (approximately \$18 million at the rate of \$1.00 to DKK 6.1933, which was the noon buying rate of the Federal Reserve Bank of New York on December 29, 2017) as an extension to the series B financing round (share issue). LSP and the ALS Investment Fund (through ALS Invest 2 B.V.) became shareholders*

We completed enrollment into the clinical Phase 2/3 trial with arimoclomol for the treatment of NPC

FDA granted orphan drug designation to arimoclomol for the treatment of sIBM

Dosing began in our Phase 2/3 clinical trial with arimoclomol for the treatment of sIBM

End of Phase 2 meeting with FDA regarding arimoclomol for ALS

We assumed sponsorship of the Phase 2/3 arimoclomol trial for sIBM from University of Kansas Medical Center and UCL

We completed our initial public offering and listing on Nasdaq Copenhagen, raising gross proceeds of DKK 600 million (\$90 million)

2018 *We were granted rare pediatric disease designation from the FDA for arimoclomol for the treatment of NPC, enabling eligibility for a priority review voucher*

We established our U.S. subsidiary with offices in Newton, Massachusetts

We enrolled the first patients in a Phase 2 clinical trial for arimoclomol for the treatment of Gaucher disease and Phase 3 clinical trial for arimoclomol for the treatment of ALS

Our current Chief Scientific Officer and co-authors published preclinical proof-of-concept for arimoclomol in Gaucher disease

2019 *We announced top-line data from our clinical Phase 2/3 clinical trial in NPC*

We confirmed preparation of filings for arimoclomol in NPC with the FDA and the EMA

We completed enrollment of clinical Phase 2/3 clinical trial in sIBM

Kim Stratton joined as our Chief Executive Officer

We completed enrollment of clinical Phase 3 clinical trial for ALS

We completed enrollment of clinical Phase 2 clinical trial in Gaucher

We borrowed €9 million under loan with Kreos Capital VI (UK) Limited

Arimoclomol for the treatment of NPC received Breakthrough Therapy Designation from the FDA

Arimoclomol for the treatment of sIBM received fast track designation in the United States

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- 2020**
- We reported positive data from our open-label Phase 2/3 extension in NPC*
 - Initiated U.S. EAP for arimocloamol as a treatment for NPC*
 - We incorporated a subsidiary in Switzerland*
 - We raised DKK 745 million (\$112 million) through a private placement*
 - Arimocloamol for the treatment of ALS received fast track designation in the United States*
 - We reported data from our Phase 2 clinical trial in Gaucher disease*
 - NDA submission accepted by the FDA for NPC with priority review*

Legal Proceedings

From time to time, we may be a party to governmental, litigation, administrative or arbitration proceedings arising in the ordinary course of our business. As of the date of this prospectus, we are not party to any such proceedings. Regardless of the outcome, any future governmental, litigation, administrative or arbitration proceedings could have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors, which impact may be material.

Property

We lease office and laboratory space from COBIS A/S on Ole Maaløes Vej 3, 2200 Copenhagen N, Denmark, with a current total gross area of approximately 1,590 square meters. The lease agreement expires on September 1, 2024. COBIS A/S is entitled to relocate us to another leasehold in the same building with the same size and standard and on the same terms, against payment of reasonable costs associated with the relocation. We also lease an office in Chicago, Illinois for our wholly-owned U.S. subsidiary with a current total gross area of approximately 3,089 square feet. We intend to add new facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

MANAGEMENT

Executive Management, Key Employees and Directors

The following table sets forth certain information relating to our executive management, key employees and directors as of the date of this prospectus.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
<i>Executive Management:</i>		
Kim Stratton	58	Chief Executive Officer
Anders Vadsholt	51	Chief Financial Officer
<i>Key Employees:</i>		
Thomas Blaettler	52	Chief Medical Officer
Thomas Kirkegaard Jensen	43	Chief Scientific Officer
<i>Directors:</i>		
Georges Gemayel (3)	60	Chairman of the Board of Directors
Bo Jesper Hansen (2)	62	Deputy Chairman of the Board of Directors
Anders Hedegaard (2)	59	Director
Catherine Moukheibir (1)	62	Director
Martijn Kleijwegt (1)	65	Director
Martin Bonde (3)	57	Director
Rémi Droller (2)	45	Director
Sten Verland (1)(3)	63	Director
Carolee Barlow	56	Director

(1) Member of Audit Committee

(2) Member of Remuneration Committee

(3) Member of Nomination Committee

Executive Management

Kim Stratton has served as our Chief Executive Officer since October 2019. Ms. Stratton has been a member of the board of directors of Novozymes A/S since February 2017 and Vifor Pharma AG since May 2019. Ms. Stratton was Head of International Commercial for all ex-U.S. Business across Specialty and Rare Diseases at Shire from August 2013 to October 2019. Previously, Ms. Stratton held several global and local positions with Novartis in the United Kingdom, United States, Switzerland and Europe. Ms. Stratton is a Registered Nurse and received her certification at Royal North Shore Hospital (Australia).

Anders Vadsholt has served as our Chief Financial Officer since May 2016 and is registered as part of executive management with the Danish Business Authority. Mr. Vadsholt has been a member of the board of directors of Oxthera AB since February 2019 and the owner and a member of the executive management of Alpha Healthcare Investments ApS since 2015, as well as a partner at Obton Solenergi Sinope Komplementaranpartsselskab since 2015. Mr. Vadsholt was a member of the executive management of Lakeside Invest ApS from 2015 to 2018 and Copenhagen Innovation Capital Management ApS from 2015 to 2018. Mr. Vadsholt holds an MBA in Finance and Strategy from the University of Melbourne, a Master of Science in Corporate Law and Economics from Copenhagen Business School.

Key Employees

Thomas Blaettler has served as our Chief Medical Officer since November 2016. Mr. Blaettler was PD Neuroscience Group Medical Director at F. Hoffmann-La Roche Ltd. from 2009 to October 2016. Mr. Blaettler holds a Doctorate in Medicine from the University of Zürich and a Medical School Certificate Swiss State Examination from the Medical School of the University of Zürich and is a board certified neurologist by the Swiss Medical Association (the Foederation Medicorum Helveticorum).

Thomas Kirkegaard Jensen has served as our Chief Scientific Officer since March 2010 and previously served as our Chief Executive Officer from June 2009 to March 2010. Mr. Kirkegaard Jensen has been a member of the executive management of Dare to Dream ApS since September 2017, an expert reviewer for the European Research Council since 2015 and a member of the advisory board for the Rare Disease Report since 2014. Mr. Kirkegaard Jensen was a member of the board of directors and executive management of OZ Holding ApS from 2009 to 2017 and vice-chairman of the national Orphan Disease Council from 2014 to 2016. Mr. Kirkegaard holds a Bachelor of Science in Biochemistry, a Master of Science in Human Biology and a PhD in Medicine from the University of Copenhagen.

Directors

Georges Gemayel has served as a member of our board of directors since November 2012 and as Chairman of our board of directors since September 2014. Mr. Gemayel is currently chairman of the board of directors of Dynacure SAS, Enterome SA and OxThera AB and a member of the board of directors of Momenta Pharmaceuticals Inc. and Supernus Pharmaceuticals Inc. Mr. Gemayel has been a partner in Gemayel Investment LLC since 2012, as well as a director of the non-governmental organization, St. Andrew's School in Ngong Inc. and a trustee of the Gemayel Family Foundation. In the past five years, Mr. Gemayel was chairman of the board of directors of Dimension Therapeutics Inc., Epitherapeutics ApS and Vascular Magnetics Inc., a member of the board of directors of NPS Pharmaceuticals Inc. and Raptor Pharmaceuticals Corp., a consultant for Novo Ventures 1 A/S, Fidelity Ventures and Noveome Biotherapeutics Inc. as well as a director of the nongovernmental organization, International Institute of New England. Mr. Gemayel holds a Master's degree and a PhD degree in Pharmacology from Paris-Sud University and a Docteur d' Exercice en Pharmacie from the St. Joseph University.

Bo Jesper Hansen has served as a member of our board of directors since December 2010 and as Deputy Chairman since October 2017. Dr. Hansen is currently chairman of the board of directors of Laborie Inc., Innoventa Medica ApS and Karo Pharma AB, as well as a member of the board of directors of Ascelia Pharma AB. Dr. Hansen is also a venture partner at Wellington Partners Life Science Fund LP and an advisory consultant for Aescap 2.0, Nordic Capital, EQT AB and Broad Street Principal Investments Europe Ltd. and senior business advisor for HBM Ventures Ltd. In the past five years, Dr. Hansen was chairman of the board of directors and a member of the executive management of Swedish Orphan Biovitrum AB, chairman of the board of directors of Ablynx NV, Karolinska Development AB and a member of the board of directors of Newron Pharmaceuticals SpA, CMC Sweden AB, Hyperion Therapeutics Inc., Azanta A/S (which was acquired by Norgine B.V. in 2020) and Inspyr Inc. Dr. Hansen holds an M.D. and Ph.D. degree in Medicine from the University of Copenhagen.

Anders Hedegaard has served as a member of our board of directors since November 2017. Mr. Hedegaard has been Chief Executive Officer of Rodenstock Group since 2019 and serves on the board of directors of certain Rodenstock Group companies. Mr. Hedegaard has been the chairman of the board of directors of ALK-Abelló A/S since March 2020. In the past five years, Mr. Hedegaard was chairman of the board of directors of Natus Medical Denmark ApS, chief executive officer of GN Store Nord A/S and GN Hearing A/S, a member of the executive management and a member of the board of directors of GN Advanced Hearing Protection A/S as well as a member of the board of directors of the Confederation of Danish Enterprise, Hearing Instrument Manufacturers Software Association A/S and HIMSA II A/S. Mr. Hedegaard holds a Master of Science in Chemical Engineering from the Technical University of Denmark.

Catherine Moukheibir has served as a member of our board of directors since November 2017. Ms. Moukheibir is currently chairman of the board of directors and chief executive officer of MedDay Pharmaceuticals SA, as well as a member of the board of directors of Genkyotex SA, Ironwood Pharmaceuticals, Inc. and Kymab Ltd. In the past five years, Ms. Moukheibir has been a member of the executive management and a consultant for Innate Pharma Inc., chairman of the board of directors of Creabilis Therapeutics SRL, a member of the board of directors of Zealand Pharma A/S, Ablynx NV and Cerenis Therapeutics SA, member of the international advisory board of Imperial College Business School and a member of the international advisory

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board of the Yale School of Management. Ms. Moukheibir holds a Master in Economics and an MBA degree, both from Yale University.

Martijn Kleijwegt has served as a member of our board of directors since January 2017. Mr. Kleijwegt is currently founder and managing partner at LSP Management Group BV and a member of the board of directors of the following portfolio companies of LSP: Kiadis Pharma N.V., Pharvaris BV, OxThera AB, Eloxx Pharmaceuticals Ltd., Arvelle Therapeutics B.V., AM Pharma BV and Vico Therapeutics Holding B.V. In the past five years, Mr. Kleijwegt was also a member of the board of directors of Prosensa N.V. Mr. Kleijwegt holds a Master's degree in Economics from the University of Amsterdam.

Martin Bonde has served as a member of our board of directors since June 2010 and was chairman of our board of directors until September 2014. Mr. Bonde is currently the Chief Executive Officer at Inthera Bioscience, a biotechnology company, a position he has held since June 2020. Mr. Bonde was previously an Entrepreneur-in-Residence at BiOrigin ApS, a Novo Seeds company. Mr. Bonde is also a member of board of directors of Visiopharm A/S, chief executive officer of Bohrs Tower ApS as well as a member of the board of directors and the executive management of Biotopix ApS. Mr. Bonde was chairman of the board of directors of the trade organization Dansk Biotek, chief executive officer of Vaccibody AS and Epitherapeutics ApS. Mr. Bonde holds a Graduate Diploma in Business Administration (HD i Udenrigshandel) from Copenhagen Business School, a Master of Science and a Ph.D. in Chemical Engineering from the Technical University of Denmark.

Rémi Droller has served as a member of our board of directors since January 2015. Rémi Droller is currently managing partner of Kurma Partners SA and is a member of the board of directors of Dyncaure SAS, ImCheck Therapeutics SAS, OxThera AB, AM Pharma BV, Flamingo Therapeutics BV, Vico Therapeutics BV and Pharvaris BV. In the past five years, Mr. Droller was chairman of the board of directors of Step Pharma SAS and a member of the board of directors of STAT Dx (sold to Qiagen). Mr. Droller holds a Master's degree in Molecular Biology from Pierre and Marie Curie University in Paris and a Master's degree in Finance and Management of Innovation from AgroParisTech.

Sten Verland has served as a member of our board of directors since December 2010. Mr. Verland is currently co-founder and a member of the board of directors of Sunstone Capital A/S, a member of the board of directors and general partner at Sunstone Life Science Ventures A/S, a member of the board of directors of STipe Therapeutics ApS, Anergis SA, MinervaX ApS, OxThera AB, as well as a member of the board of directors and executive management in certain companies in, or associated with, the Sunstone group. Mr. Verland is also currently a member of the executive management of Verland Capital ApS, Verland Holding ApS, Verland Holding II ApS and Genobiotix ApS. In the past five years, Mr. Verland was a member of the board of directors of F2G Ltd., Vaximm AG, Rigontec GmbH, the Danish Venture Capital and Private Equity Association (DVCA), Selskabet af 9. september 2015 A/S and Selskabet af 23. september 2015 ApS, a member of the board of directors and chief executive officer of VetVerland ApS, as well as a general partner and a member of the board of directors and executive management in certain companies in or associated with the Sunstone group. Mr. Verland holds a Master's degree in Biology and a Ph.D. in Immunology, both from the University of Copenhagen.

Carolee Barlow has served on our board of directors since September 2020. Dr. Barlow is the Chief Medical Officer of E-Scape Bio Inc. since January 2019. In the past five years, Dr. Barlow has served as chief executive officer and a member of the board of directors of the Parkinson's Institute and Clinical Center and as a member of the scientific and/or clinical advisory board for multiple companies focused on neurodegenerative and brain disorders. Dr. Barlow is currently a member of the board of directors of Supernus Pharmaceuticals and is a member of the scientific and/or clinical advisory boards of Neuramatrix Inc., Kainos Medicine and the Silverstein Foundation. Dr. Barlow holds a Bachelor's degree in English from the University of Utah, an M.D. from the University of Utah School of Medicine and a Ph.D. in Molecular and Development Biology from the Karolinska Medical Nobel Institute.

Family Relationships

There are no family relationships among any of our executive officers or directors.

Corporate Governance Practices

We have a two-tier governance structure consisting of our board of directors and our executive officers which include executive management registered with the Danish Business Authority and certain key employees. The two bodies are separate and have no overlapping members. The business address of our board of directors and executive management is Ole Maaløes Vej 3, DK-2200 Copenhagen N, Denmark.

Our board of directors is responsible for the overall and strategic management and proper organization of our business and operations and supervises our activities, management and organization. Our board of directors appoints and dismisses the members of our executive management, who are responsible for the day-to-day management of our business. In accordance with our articles of association, at our general meeting we are required to elect not less than six and not more than nine members to our board of directors. The members of our board of directors elected at the general meeting are elected for a term of one year, and may be re-elected.

As of the date of this prospectus, our board of directors is comprised of nine members elected at the general meeting, and consists of the Chairman, the Deputy Chairman and seven additional board members. The following table presents an overview of the current composition of our board of directors:

<u>Name</u>	<u>Position</u>	<u>Independent</u>	<u>Year of first appointment</u>	<u>Expiration of term</u>
Georges Gemayel	Chairman	Independent	2012	2021
Bo Jesper Hansen	Deputy Chairman	Independent	2010	2021
Anders Hedegaard	Member	Independent	2017	2021
Catherine Moukheibir	Member	Independent	2017	2021
Martijn Kleijwegt	Member	Independent	2017	2021
Martin Bonde	Member	Independent	2010	2021
Rémi Droller	Member	Independent	2015	2021
Sten Verland	Member	Independent	2010	2021
Carrolee Barlow	Member	Independent	2020	2021

Our board of directors has undertaken a review of the independence of the directors. Based upon information requested from and provided by each director concerning such director's background, employment and affiliations, including family relationships, our board of directors determined that all of our directors are "independent directors" as defined under current rules and regulations of the SEC and Nasdaq. In making such determination, our board of directors considered whether any director has a material relationship with us that could compromise their ability to exercise independent judgment in carrying out their responsibilities. For an overview of our corporate governance principles, see the section of this prospectus entitled "Description of Share Capital and Articles of Association."

In addition, we are a "foreign private issuer," as defined by the SEC. As a result, in accordance with Nasdaq listing requirements, we will comply with our home country governance requirements and certain exemptions thereunder rather than complying with Nasdaq corporate governance standards. While we voluntarily follow most Nasdaq corporate governance rules, we may choose to take advantage of the following limited exemptions:

- Exemption from quorum requirements applicable to meetings of shareholders. Such quorum requirements are not required under Danish law. In accordance with generally accepted business practice, our Articles of Association will provide alternative quorum requirements that are generally applicable to meetings of shareholders.

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- Exemption from the requirement to have a compensation committee comprised solely of independent members of the board of directors.
- Exemption from the requirement to obtain shareholder approval for certain issuances of securities, including shareholder approval of share option plans.

We intend to follow our home country, Denmark, practices in lieu of the foregoing requirements. Although we may rely on home country corporate governance practices in lieu of certain of the rules in the Nasdaq Rule 5600 Series and Rule 5250(d), we must comply with Nasdaq's Notification of Noncompliance requirement (Rule 5625) and the Voting Rights requirement (Rule 5640). Further, we must have an audit committee that satisfies Nasdaq Rule 5605(c)(3), which addresses audit committee responsibilities and authority and requires that the audit committee consist of members who meet the independence requirements of Nasdaq Rule 5605(c)(2)(A)(ii).

In addition, as a foreign private issuer, we expect to take advantage of the following exemptions from SEC reporting obligations:

- Exemption from filing quarterly reports on Form 10-Q or provide current reports on Form 8-K disclosing significant events within four days of their occurrence.
- Exemption from Section 16 rules regarding sales of our securities by insiders, which will provide less data in this regard than shareholders of U.S. companies that are subject to the Exchange Act.

Accordingly, our shareholders and holders of ADSs will not have the same protections afforded to shareholders of companies that are subject to all of the corporate governance requirements of Nasdaq and the domestic reporting requirements of the SEC. We may utilize these exemptions for as long as we continue to qualify as a foreign private issuer. For an overview of our corporate governance principles, see the section titled "Description of Share Capital and Articles of Association—Comparison of Danish Corporate Law and Our Articles of Association and Delaware Corporate Law."

Committees of our Board of Directors

Our board of directors has three standing committees: an audit committee, a remuneration committee and a nomination committee.

Audit Committee

The audit committee consists of Catherine Moukheibir, Martijn Kleijwegt and Sten Verland, and assists the board of directors in overseeing our accounting and financial reporting processes. Ms. Moukheibir serves as chairman of the audit committee. The audit committee consists exclusively of members of our board who are financially literate, and Ms. Moukheibir 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 of directors has determined that all of the members of the audit committee satisfy the "independence" requirements set forth in Rule 10A-3 under the Exchange Act. The audit committee will be governed by a charter that complies with Nasdaq rules.

The audit committee's responsibilities following the global offering will include, among other things:

- recommending and supervising our external auditors;
- pre-approve all non-audit services to be provided by any external auditors exceeding a cap determined by our board of directors;

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- providing our board of directors with advice regarding the proposed external auditors from time to time as well as evaluate the quality of work being performed by the external auditors;
- ensuring that appropriate policies with regard to hiring employees from our external auditors are in place;
- reviewing and monitoring the independence and quality of work being performed by our external auditors, especially the appropriateness of the provision of non-audit services us;
- evaluating the information contained in our external financial reporting;
- reviewing our annual and quarterly financial statements prior to publication and/or filing (or submission, as the case may be) with the SEC;
- informing our board of directors of the result of the statutory audit, including the financial reporting process;
- monitoring the financial reporting process and submit recommendations or proposals to ensure its integrity;
- evaluating the “going-concern” principle, including any special assumptions, qualifications and/or uncertainties related thereto;
- evaluating the main accounting policies and principles applied including to make recommendations to our board of directors regarding whether these should be amended;
- evaluating significant accounting estimates and judgments made and changes hereto;
- reviewing and evaluating transactions with related parties;
- evaluating relevant risks and uncertainties for the relevant year, e.g. in relation to the outlook in the financial reporting;
- evaluating the overall presentation of our financial reporting in order to ensure that it provides a true and fair view of the financial position as well as our development and performance;
- evaluating our compliance with relevant audit and accounting related laws and regulations;
- supervising our internal audit program;
- such other matters that are specifically delegated to our audit committee by our board of directors from time to time; and
- meeting separately, periodically, with management, internal auditors and the independent auditor.

Remuneration Committee

The remuneration committee consists of Bo Jesper Hansen, Rémi Droller and Anders Hedegaard. Mr. Jesper Hansen serves as chairman of the remuneration committee. Under SEC and Nasdaq rules, there are heightened independence standards for members of the remuneration committee, including a prohibition against the receipt of any compensation from us other than standard board member fees. Although foreign private issuers are not required to meet this heightened standard, all of our remuneration committee members are expected to meet this heightened standard.

The remuneration committee's responsibilities include, among other things:

- continuously ensuring that the remuneration of the members of our board of directors and our executive management is in accordance with our remuneration policy and is consistent with the performance of the relevant member;
- annually reviewing and, if relevant, making recommendations for amendment of the remuneration policy for the members of our board of directors and our executive management;
- annually reviewing the compensation level of our executive management and comparing it to the market level of management compensation among comparable companies;
- ensuring that agreements with the members of our executive management entitle us under special circumstances to reclaim in full or in part variable remuneration that is paid on the basis of information, which subsequently proves to be manifestly misstated ("claw-back") and that termination/severance payments shall not exceed the aggregate remuneration for the last two years;
- reviewing any proposals and make recommendations to our board of directors regarding any change to the remuneration or contract terms of our executive management;
- reviewing any proposals and make recommendations to our board of directors regarding any severance payment to our executive management;
- making recommendations to our board of directors regarding the remuneration of the members of our board of directors, including components and levels thereof.
- monitoring that the information in the annual report regarding the remuneration of our board of directors and our executive management is correct, sufficient, and gives a true and fair view;
- ensuring that key compensation terms are disclosed accurately in connection with our annual reporting;
- making recommendations regarding the criteria for assessing the annual incentive and performance pay for our executive management;
- making recommendations to our board of directors at the start of each financial year regarding the criteria for determining the size of our incentive and performance pay for all employees for the present year and at the conclusion of each financial year, review and make recommendations to our board of directors regarding the size and allocation of the incentive and performance pay; and
- such other matters that are specifically delegated to the remuneration committee by our board of directors from time to time.

Nomination Committee

The nomination committee consists Georges Gemayel, Martin Bonde and Sten Verland. Mr. Gemayel serves as chairman of the nomination committee.

The nomination committee's responsibilities include, among other things:

- assisting the chairman of our board of directors with the annual evaluation of the effectiveness, achievements and competencies of our board of directors and executive management;

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- annually reviewing developments in respect of independence criteria for our board of directors and executive management and review the composition of our board of directors and executive management in relation to independence;
- ensuring a formal, thorough and transparent process for selection and nomination of candidates to our board of directors taking into consideration the need for diversity as well as recommending that the majority of the members of our board of directors elected by the general meeting be independent as defined in the Danish Recommendations on Corporate Governance (as amended from time to time);
- reviewing and recommending to our board of directors the target figures and policy for the gender composition of our board of directors and other managerial positions;
- considering proposals for candidates to our board of directors and executive management submitted by relevant persons, including shareholders and members of our board of directors and executive management;
- recommending to our board of directors candidates and any changes to our board of directors and executive management, which shall include a review and assessment of potential candidates for our board of directors and executive management, including their qualifications, experience and other competences as well as any possible conflicts of interests such candidates may have;
- ensuring that recommendations for the nomination and/or replacement of members of our board of directors and executive management shall be prepared on the basis of the qualifications and competences deemed to be required by the Nomination Committee;
- ensuring that recommendations for the nomination and/or replacement of members of our board of directors and executive management shall be prepared in accordance with the target figures and policy for the gender composition of our board of directors and other managerial positions as set out by our board of directors;
- prepare descriptions of nominated candidates' qualifications, including information on other executive functions (e.g. memberships of management boards, boards of directors, supervisory boards, board committees etc.) in Danish and foreign companies as well as any demanding positions and tasks in organizations;
- annually make suggestions for appointment of members to the committees established by our board of directors; and
- such other matters that are specifically delegated to the nominating committee by our board of directors from time to time.

Code of Business Conduct

In connection with the global offering, we intend to adopt a code of business conduct and ethics, or code of conduct, which outlines the principles of legal and ethical business conduct under which we do business. The code of conduct applies to all of our board members and employees. The full text of the code of conduct will be made available on our website at www.orphazyme.com. The information on, or that can be accessed through, our website is not part of and is not incorporated by reference into this prospectus. We have included our website address as an inactive textual reference only. Any amendments to the provisions of the code of conduct will be made only after approval by our board of directors or committees thereof and will be disclosed on our website promptly following the date of such amendment or waiver. Any waivers from the provisions of the code of conduct for the benefit of a director or an executive officer will be made only after approval by our board of directors or committee thereof and will be disclosed in accordance with applicable securities laws and any waiver from the provisions of the code of conduct for other employees may be made by our compliance officer or by our board of directors or committee thereof.

Compensation of Executive Management and Directors

Our executive management consist of our Chief Executive Officer and Chief Financial Officer. The members of our executive management are eligible to receive an annual performance-based cash bonus subject to certain predefined corporate and individual goals as determined by our board of directors on an annual basis. A cash bonus received under the short-term incentive program may not exceed 100% of the annual fixed salary of the participants. The members of our executive management are also eligible to receive an extraordinary bonus at the discretion of our board of directors.

The following table presents employee compensation, including remuneration to our board of directors, for the years ended December 31, 2019 and 2018. Remuneration to our executive management includes remuneration to Kim Stratton for the period from October 1, 2019 to December 31, 2019, to Anders Vadsholt for the full year and to Anders Hinsby for the full year, as he received salary and benefits for the full year of 2019.

(in thousands of DKK)	Years Ended December 31,	
	2019	2018
Anders Hinsby (former CEO)		
Salary	2,424	1,917
Bonus	1,038	723
Share-based compensation	294	676
Other employee benefits	270	215
Total	<u>4,026</u>	<u>3,531</u>
Kim Stratton (current CEO since Oct 1, 2019)		
Salary	962	—
Bonus	1,025	—
Share-based compensation	—	—
Other employee benefits	215	—
Total	<u>2,202</u>	<u>—</u>
Anders Vadsholt (CFO)		
Salary	1,803	1,411
Bonus	1,250	450
Share-based compensation	406	463
Other employee benefits	260	161
Total	<u>3,719</u>	<u>2,485</u>
Total remuneration to the Executive Management	<u>9,947</u>	<u>6,016</u>

The following table lists aggregate remuneration to our executive officers and board of directors for the years ended December 31, 2019 and 2018:

(in thousands of DKK)	Years Ended December 31,	
	2019	2018
Employee costs, excluding Executive Management and Board		
Salaries	63,530	38,915
Cash bonus	5,394	3,410
Share-based compensation	1,705	1,006
Pensions	4,972	2,686
Other social security contributions	815	322
Other staff costs	766	966
Total employee costs, excluding Executive Management and Board	<u>77,182</u>	<u>47,305</u>
Executive Management remuneration		
Salaries	5,189	3,328
Cash bonus	3,313	1,173
Share-based compensation	700	1,139
Pensions	589	372
Other social security contributions	60	4
Other staff costs	96	—
Total Executive Management remuneration	<u>9,947</u>	<u>6,016</u>
Board of Directors remuneration		
Board and committee fees	2,594	2,584
Travel allowance	294	179
Share-based compensation	145	—
Total Board of Directors remuneration	<u>3,033</u>	<u>2,763</u>
Total employee costs	<u>90,162</u>	<u>56,084</u>
Recognized as follows in the Statement of Profit or Loss:		
Research and development expenses	64,167	40,281
General and administrative expenses	25,995	15,803
Total employee costs	<u>90,162</u>	<u>56,084</u>
Average number of full-time employees	<u>74</u>	<u>46</u>
Year-end number of full-time employees	<u>86</u>	<u>57</u>

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The following table lists remuneration to our board of directors for the years ended December 31, 2019 and 2018:

(in thousands of DKK)	Years Ended December 31,	
	2019	2018
Georges Gemayel (Chairman of the Board)		
Board and committee fees	470	468
Travel allowance	64	47
Share-based compensation	28	—
Total	<u>562</u>	<u>515</u>
Bo Jesper Hansen (Deputy Chairman of the Board)		
Board and committee fees	395	394
Travel allowance	46	33
Share-based compensation	21	—
Total	<u>462</u>	<u>427</u>
Martin Bonde		
Board and committee fees	259	258
Travel allowance	—	—
Share-based compensation	16	—
Total	<u>275</u>	<u>258</u>
Martijn Kleijwegt		
Board and committee fees	285	284
Travel allowance	46	33
Share-based compensation	16	—
Total	<u>347</u>	<u>317</u>
Rémi Droller		
Board and committee fees	270	269
Travel allowance	46	33
Share-based compensation	16	—
Total	<u>332</u>	<u>302</u>
Sten Verland		
Board and committee fees	309	307
Travel allowance	—	—
Share-based compensation	16	—
Total	<u>325</u>	<u>307</u>
Anders Hedegaard		
Board and committee fees	270	269
Travel allowance	46	—
Share-based compensation	16	—
Total	<u>332</u>	<u>269</u>
Catherine Moukheibir		
Board and committee fees	336	335
Travel allowance	46	33
Share-based compensation	16	—
Total	<u>398</u>	<u>368</u>
Total remuneration to the Board of Directors	<u>3,033</u>	<u>2,763</u>

No member of the board of directors is entitled to any kind of remuneration upon retirement from his or her position as a member of the board of directors. We have not allocated funds for any pension benefits,

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severance schemes or similar measures, or undertaken any other obligations to do so on behalf of the board of directors, and we have no obligation to do so.

We previously adopted a Remuneration Policy for the board of directors and executive management of the company in accordance with Sections 139 and 139(a) of the Danish Companies Act, or DCA. No member of our board of directors and executive officers has received or will receive separate remuneration in connection with the global offering.

Executive Management Agreements

Kim Stratton

We entered into a service agreement with Kim Stratton in July 2019 with an effective date of October 1, 2019. Pursuant to the service agreement, Ms. Stratton is entitled to (i) an annual base salary of DKK 3.5 million, which is subject to review on an annual basis, (ii) a sign-on bonus of DKK 675,000 and (iii) standard benefits (such as a mileage allowance, insurance coverage and a company-paid computer). Ms. Stratton is also eligible to participate in our incentive schemes, including for an annual maximum cash bonus of 50% of her annual gross salary. In addition, under the LTIP, Ms. Stratton is eligible to purchase Investment Shares (as defined below) for a total amount of up to 25% of Ms. Stratton's annual gross salary and, subject to the LTIP, is eligible to receive one Matching Share (as defined below) per Investment Share. Additionally, subject to the terms of the LTIP, Ms. Stratton will be eligible to receive six Performance Shares (as defined below) per Investment Share, provided that our share price increased between 20-80%. For further details on the terms and conditions of the LTIP, see “—Equity Incentive Plans—Long-term Incentive Programs.”

Ms. Stratton also received an additional sign-on bonus in the form of a special CEO share grant. As a prerequisite to such bonus, Ms. Stratton was required to invest DKK 675,000 in shares to be acquired through the public markets. Pursuant to this grant, Ms. Stratton was eligible to receive up to 58,000 shares, provided that our share price increased to 125 DKK per share within three years from the date of employment, consisting of (i) 6,000 shares, provided that our share price increased to 75 DKK per share, (ii) 12,000 shares, provided that our share price increased to 100 DKK per share, and (iii) 40,000 shares, provided that our share price increased to 125 DKK per share.

Ms. Stratton may terminate her employment with us by giving nine months' notice and we can terminate her employment with us by giving 12 months' notice.

The service agreement with Ms. Stratton provides for the payment of a takeover retention bonus equaling 12 months' base salary if Ms. Stratton is still employed by us and not under notice on the first anniversary of completion of certain transactions resulting in a change of control. Ms. Stratton will still be entitled to this bonus if she is under notice on the first anniversary if we terminate her employment without a reasonably justifiable cause or if she gives the notice due to a gross breach by us.

The service agreement with Ms. Stratton also provides for the payment of post-employment compensation to her dependents in the event of her death. If Ms. Stratton's employment with us ends due to her dismissal by us without the dismissal being due to her circumstances, she is entitled to severance equal to 24 months of her base salary.

Ms. Stratton is subject to a non-competition clause and a non-solicitation of customers clause applicable during her employment and for a period of 12 months following expiry of her employment. Ms. Stratton is not entitled to any separate compensation under her non-competition and non-solicitation clauses. Pursuant to mandatory Danish law, Ms. Stratton's non-competition clause lapses if her employment is terminated by the Company for a reason that is not attributable to her.

Anders Vadsholt

We entered into a service agreement with Anders Vadsholt in October 2017 with an effective date of November 1, 2017, which was later amended to adjust for, among other things, annual salary increases. Pursuant to the service agreement, as amended, Mr. Vadsholt is entitled to (i) an annual base salary of approximately DKK 2.3 million, (ii) participate in our incentive schemes and (iii) standard benefits (such as a mileage allowance, insurance coverage and a company-paid computer).

Mr. Vadsholt may terminate his employment with us by giving six months' notice and we can terminate his employment with us by giving 12 months' notice.

The service agreement with Mr. Vadsholt provides for the payment of a takeover retention bonus equaling 12 months' base salary if Mr. Vadsholt is still employed by us and not under notice on the first anniversary of completion of certain transactions resulting in a change of control. Mr. Vadsholt will still be entitled to this bonus if he is under notice on the first anniversary if we terminate his employment without a reasonably justifiable cause or if he gives the notice due to a gross breach by us. The service agreement with Mr. Vadsholt also provides for the payment of post-employment compensation to his dependents in the event of his death.

Mr. Vadsholt is subject to a non-competition clause and a non-solicitation of customers clause applicable during his employment and for a period of 12 months following expiry of his employment. Mr. Vadsholt is entitled to separate compensation under his non-competition and non-solicitation clauses. Pursuant to mandatory Danish law, Mr. Vadsholt's non-competition clause lapses if his employment is terminated by the Company for a reason that is not attributable to him.

Equity Incentive Plans

Restricted Share Units

Our board of directors may be granted share-based incentives in the form of restricted share units, or RSUs, under the Board Incentive Program outlined in the Remuneration Policy. Each RSU grants a right to the participants to be allocated one share in the Company. The RSUs will have a vesting period from the date of grant and until the approval of the annual report at the annual general meeting in the following calendar year and is therefore aligned with the one-year election period for the members of our board of directors. Following vesting, participants may be allocated a number of shares equivalent to the number of the RSUs vested at a maximum a price per RSU equal to the par value of our shares and may be exercised within a period of 12 months following vesting.

In general, according to our Remuneration Policy, our board of directors may at the time of grant decide to make the vesting or exercise of the RSUs conditional upon certain criteria, including continued board membership through the applicable vesting date and, in connection with the September 2020 grant letters, the successful initiation or completion of this offering. To ensure our board of directors' independence and supervisory function, such conditions will not be related to financial performance criteria.

Board members are eligible to receive one annual grant with a value corresponding to up to 50% of their fixed annual base fee, such base fee to include additional base fees to the chairman and deputy chairman but excluding any additional fees for committee membership. New board members are eligible to receive one on-boarding grant in connection with their election to our board of directors with a value corresponding up to 100% of their fixed annual base fee, such base fee to include additional base fees to the Chairman and Deputy Chairman but excluding any additional fees for committee membership. The value of a grant will be calculated on the basis of a recognized valuation model as determined by our board of directors.

In cases where our board of directors assesses that the issue or transfer of shares would have a materially adverse effect on us and/or the board member, our board of directors may decide to settle the RSUs in cash.

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Incentives granted under a share-based incentive program are subject to recovery or “claw-back” in case they have been granted, vested, or exercised on a basis subsequently substantiated as being incorrect.

Our board of directors may in its sole discretion resolve to accelerate vesting or amend the terms of the Board Incentive Program or grants thereunder under special circumstances, e.g., in connection with a merger, demerger or delisting or in connection with a public takeover bid for our shares.

Long-Term Incentive Programs

The Orphazyme A/S long-term incentive program, or LTIP, was initially established in connection with our admission to trading and official listing on Nasdaq Copenhagen. The LTIP is a matching and performance share program under which the executive management and certain other key employees may be offered to acquire or subscribe for our shares, or the Investment Shares, as determined by our board of directors from time to time in connection with each grant. Our board of directors may decide to offer other of our or our subsidiaries’ current or new employees to participate in the LTIP.

Under the LTIP, the participants may be allocated a number of our shares, or the Performance Shares, in proportion to the number of Investment Shares held by the participants, at a maximum price per Performance Share equal to the par value of our shares at the end of a vesting period covering at least three financial years. The number of Performance Shares allocated upon vesting shall be proportional to a potential increase in share price will be calculated as the volume weighted average share price as quoted on Nasdaq Copenhagen during the 10 trading days preceding the relevant vesting date and a reference date to be determined by the board of directors. Performance Shares will be allocated on a linear scale with maximum allocation triggered by an 80% increase in share price at the time of vesting, whereas no Performance Shares will be allocated, if the share price has increased 20% or less at the time of vesting. Additionally, vesting is inter alia subject to the participants having maintained ownership of their Investment Shares (as outlined in individual grant letters) and continued employment at the time of vesting. The maximum allocation of Performance Shares will be up to six times the number of Investment Shares subscribed for or held by the participants. The value of Performance Shares shall be calculated using a recognized valuation model as determined by our board of directors. The value shall not exceed 200% of the member of the executive management’s annual fixed salary at the time of grant.

In order to also promote a short-term share-based incentive for the participants to retain their employment with the company, they may be allocated a number of company shares, or Matching Shares, at a maximum price per Matching Share of DKK 1 with a vesting period shorter than two years to be determined by our board of directors. The number of Matching Shares shall at least be equal to the number of Investment Shares subscribed for or held at the time of grant as determined by our board of directors and vesting will be subject to the participants having maintained ownership of their Investment Shares and continued employment at the time of vesting. The value of Matching Shares shall be calculated using a recognized valuation model as determined by our board of directors. The value may not exceed 50% of the executive management’s annual fixed salary at the time of grant.

The Matching Shares and Performance Shares will vest on an accelerated basis in connection with a public takeover bid for our shares (subject to the vesting conditions of the LTIP being satisfied at such time). Furthermore, our board of directors may in its sole discretion decide to accelerate vesting under other special circumstances, e.g. in connection with a merger, demerger or delisting. The number of Matching Shares and Performance Shares may be adjusted in connection with certain changes to our capital structure which may have unintended effects on the value of the Matching Shares or Performance Shares, e.g. capital increases below market value (subject to certain exceptions, including capital increases made in connection with share-based incentive programs).

Incentives granted under a share-based incentive program are subject to recovery or “claw-back” in case they have been granted, vested or exercised on a basis subsequently substantiated as being incorrect.

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Our obligation to deliver Matching Shares and Performance Shares under the LTIP may be covered by a variety of means in our discretion, including shares held in treasury by us accumulated through share buy-backs or directed issues of shares and/or bonus shares.

IPO Cash Bonuses

In connection with the U.S. offering, we have granted our executive management, key employees and other employees a cash bonus of six months base salary for executive management, four months for key employees and up to one month for other employees. This cash bonus will be payable if the U.S. offering is completed in accordance with specified terms set forth in the individual grant letters. Executive management may invest one third of such cash bonus in our ordinary shares and the key employees may invest one fourth of such cash bonus in our ordinary shares, in each case in accordance with our LTIP.

Shareholding Requirements

Our executive management are at all times required to hold a minimum amount of our shares with a value equal to each of their respective annual fixed salaries at the time of acquisition of the shares. The required shareholding may be built up over a specified period.

Insurance and Indemnification

According to the DCA, the general meeting is permitted to discharge our board members and members of our executive management from liability for any particular financial year based on a resolution relating to the period covered by the financial statements for the previous financial year. This discharge means that the general meeting will relieve such board members and members of our executive management from liability to us. However, the general meeting cannot discharge any claims by individual shareholders or other third parties. In addition, the discharge can be set aside in case the general meeting prior to its decision to discharge was not presented with all reasonable information necessary for the general meeting to assess the matter at hand.

Additionally, we have agreed to indemnify our board members and members of our executive management and employees, in relation to certain claims. We will not, however, indemnify our board members, executive management and employees, in respect of: (i) claims against a person pursuant to Danish law raised before the Danish Courts, except claims arising from the offer, sale and listing of the our securities in the United States and/or our subsequent status as a listed company in the United States, including in respect of our reports filed with or furnished to the U.S. Securities and Exchange Commission; (ii) claims against a person for damages and legal costs related to criminal and/or grossly negligent or willful acts or omissions committed by the indemnified person; (iii) claims against an indemnified person, which is attributable to the gaining or purported gaining of any profit or advantage to which the indemnified person or any related natural or legal person was not legally entitled; (iv) claims covered by insurance; (v) claims brought against the indemnified person by the Company or any subsidiary of the Company; and (vi) any sum payable to a regulatory authority by way of a penalty in respect of the indemnified person's personal non-compliance with any requirement of a regulatory nature howsoever arising. The indemnification will be limited to a maximum amount per claim per person equivalent to the gross proceeds obtained by us in connection with the offering of ADSs in the United States. The indemnification shall remain in force for a period of five years after the resignation of the indemnified person from the company or its subsidiaries, if the claims made within such period are related to such person's services to us.

There is a risk that such indemnification will be deemed void under Danish law, either because the indemnification is deemed contrary to the rules on discharge of liability in the DCA (*Selskabsloven*) as set forth above, because the indemnification is deemed contrary to sections 19 and 23 of the Danish Liability and Compensation Act (*Erstatningsansvarsloven*), which contain mandatory provisions on recourse claims between an employee (including members of our executive management) and the company, or because the indemnification is deemed contrary to the general provisions of the Danish Contracts Act (*Aftaleloven*).

In addition, we provide our board members and executive management with directors' and officers' liability insurance.

PRINCIPAL SHAREHOLDERS

Except as specifically noted, the following table sets forth information with respect to the beneficial ownership of our ordinary shares as of June 30, 2020:

- each of our directors and executive officers;
- all of our directors and executive officers as a group; and
- each person known to us to beneficially own more than 5% of our ordinary shares.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of ordinary shares beneficially owned by a person and the percentage ownership of that person, we have included ordinary shares that the person has the right to acquire within 60 days of June 30, 2020, including through the exercise of any option, warrant or other right or the conversion of any other security. These ordinary shares, however, are not included in the computation of the percentage ownership of any other person.

The calculations in the table below are based on 27,044,929 ordinary shares outstanding as of June 30, 2020, and 34,661,075 ordinary shares (including ordinary shares in the form of ADSs) issued and outstanding immediately after the completion of the global offering, assuming the underwriters do not exercise their option to purchase additional ordinary shares (including ordinary shares in the form of ADSs).

Except as otherwise indicated in the table below, addresses of the directors, executive officers and named beneficial owners are in care of Orphazyme A/S, Ole Maaløes Vej 3, DK-2200 Copenhagen N, Denmark.

Name of beneficial owner	Number of ordinary shares beneficially owned	Percentage of ordinary shares beneficially owned	
		Before global offering	After global offering
<i>5% or Greater Shareholders:</i>			
Orpha Pooling B.V. (1)	2,710,829	10.0%	7.8%
Sunstone Life Science Ventures Fund II K/S (2)	1,787,918	6.6%	5.2%
Coöperative Aescap Venture I U.A. (3)	1,765,605	6.6%	5.1%
Entities affiliated with Consonance Capman GP LLC (4)	1,900,000	7.0%	5.5%
<i>Executive Officers and Directors:</i>			
Kim Stratton	42,600	*	*
Anders Vadsholt (5)	139,556	*	*
Thomas Blaettler (6)	85,799	*	*
Thomas Kirkegaard Jensen (7)	241,785	*	*
Georges Gemayel (8)	100,809	*	*
Bo Jesper Hansen	143,234	*	*
Anders Hedegaard	15,677	*	*
Catherine Moukheibir (9)	9,907	*	*
Martijn Kleijwegt (10)	2,712,756	10.0%	7.8%
Martin Bonde (11)	47,936	*	*
Rémi Droller (12)	907,452	3.4%	2.6%
Sten Verland (13)	1,927	*	*
Carolee Barlow	—	—	—
All current directors and executive officers as a group (13 persons) (14)	4,449,438	16.5%	12.8%

* Represents beneficial ownership of less than one percent.

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- (1) Orpha Pooling B.V. is an investment vehicle 88.2% owned by LSP V Coöperatieve U.A. and 11.8% owned by ALS Invest 2 B.V. LSP Management B.V. is the director of LSP V Coöperatieve U.A. and the director of Orpha Pooling B.V. and exercises voting rights on behalf of Orpha Pooling B.V. Martijn Kleijwegt is a director of LSP Management B.V. The address for LSP V Coöperatieve U.A., Orpha Pooling B.V., LSP Management B.V. and Martijn Kleijwegt is Johannes Vermeerplein 9, 1071 DV Amsterdam, the Netherlands.
- (2) Sunstone Life Science Ventures Fund II K/S is managed by Sunstone Life Science Ventures A/S (CVR no. 33 85 91 98). The address for Sunstone Life Science Ventures Fund II K/S and Sunstone Life Science Ventures A/S is Store Strandstræde 18, DK-1255 Copenhagen, Denmark.
- (3) Coöperative Aescap Venture I U.A. is managed by Aescap Venture Management B.V. Patrick Krol is the manager of Aescap Venture Management B.V. The address for Coöperative Aescap Venture I U.A., Aescap Venture Management B.V. and Patrick Krol is Barbara Strozziilaan 101, 1083 HN Amsterdam, The Netherlands.
- (4) Consists of ordinary shares held by Consonance Capital Master Account LP, or Consonance Master, Consonance Capital Opportunity Master Fund LP, or Consonance Opportunity, and P Consonance Opportunities Ltd., or P Consonance. Consonance Capital Management LP, or the Adviser, is the investment adviser of Consonance Master and Consonance Opportunity, and pursuant to an investment advisory agreement, the Adviser exercises voting and investment power over our ordinary shares held by Consonance Master. Consonance Capital Opportunity Fund Management LP, or the Capital Opportunity Adviser, is the investment adviser of P Consonance, and pursuant to an investment advisory agreement, the Capital Opportunity Adviser exercises voting and investment power over the ordinary shares held by P Consonance. Consonance Capman GP LLC, or Capman, is the general partner of the Adviser and the Capital Opportunity Adviser and Mitchell Blutt, as the Manager & Member of Capman and Chief Executive Officer of the Adviser and the Capital Opportunity Adviser, may be deemed to control Capman, the Adviser and the Capital Opportunity Adviser. Capman is also the general partner of Consonance Opportunity and Mr. Blutt, as the Manager & Member of Capman, may be deemed to control Capman and Consonance Opportunity. Each of Capman and Mr. Blutt may be deemed to beneficially own these ordinary shares. The address for Consonance Master, Consonance Opportunity, the Adviser, the Capital Opportunity Adviser, Capman and Mr. Blutt is 1370 Avenue of the America, Floor 33, New York, New York 10019.
- (5) Consists of (i) 11,750 ordinary shares held directly by Anders Vadsholt, (ii) 121,556 ordinary shares held by Alpha Healthcare Investments ApS, and (iii) 6,250 ordinary shares issuable upon exercise of Matching Shares within 60 days of June 30, 2020. Alpha Healthcare Investments ApS is an investment company wholly-owned by Ander Vadsholt.
- (6) Consists of (i) 79,549 ordinary shares and (ii) 6,250 ordinary shares issuable upon exercise of Matching Shares within 60 days of June 30, 2020.
- (7) Consists of (i) 235,535 ordinary shares and (ii) 6,250 ordinary shares issuable upon exercise of Matching Shares within 60 days of June 30, 2020.
- (8) Consists of (i) 97,358 ordinary shares held by GFD Investments LLC and (ii) 3,451 ordinary shares issuable upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020. Georges Gemayel is the manager and the Gemayel Family 2016 Irrevocable Trust is the sole member of GFD Investments LLC.
- (9) Consists of (i) 7,980 ordinary shares and (ii) 1,927 ordinary shares issuable upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020.
- (10) Consists of (i) 279,157 ordinary shares held by LSP V Coöperatieve U.A., (ii) 2,431,672 ordinary shares held by Orpha Pooling B.V. and (iii) 1,927 ordinary shares issuable upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020. LSP Management B.V. is the director of LSP V Coöperatieve U.A. and the director of Orpha Pooling B.V. and exercises voting rights on behalf of such entities. Martijn Kleijwegt is a director of LSP Management B.V. The address for LSP V Coöperatieve U.A., Orpha Pooling B.V., LSP Management B.V. and Martijn Kleijwegt is Johannes Vermeerplein 9, 1071 DV Amsterdam, the Netherlands.
- (11) Consists of (i) 5,052 ordinary shares held by Martin Bonde and (ii) 42,884 ordinary shares held by Bohrs Tower Aps. Martin Bonde owns 100% of Bohrs Tower Aps.
- (12) Consists of (i) 905,525 ordinary shares held by Kurma Biofund II and (ii) 1,927 ordinary shares issuable upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020. Kurma Partners manages

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Kurma Biofund II and Remi Doller controls Kurma Partners. The address for Kurma Biofund II, Kurma Partners and Remi Doller is 24 rue Royale—75008 Paris, France.

- (13) Consists of 1,927 ordinary shares issuable upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020.
- (14) Consists of (i) 4,419,529 ordinary shares, (ii) 18,750 ordinary shares issuable upon exercise of Matching Shares and (iii) 11,159 ordinary shares upon settlement of RSUs for ordinary shares within 60 days of June 30, 2020.

As of the date of this prospectus, approximately 20% of our ordinary shares are held by 21 record holders in the United States.

Significant Changes in Percentage Ownership

We are not aware of any arrangement that may, at a subsequent date, result in a change of control of our company. See also “Certain Relationships and Related Party Transactions” for information relating to changes in the holdings of our major shareholders over the last three years.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a summary of transactions since January 1, 2017 to which we have been a participant in which the amount involved exceeded or will exceed \$120,000, and in which any of our then directors, executive officers or holders of more than 10% of any class of our voting securities at the time of such transaction, or any members of their immediate family, had or will have a direct or indirect material interest.

Stock Lending and Subscription Agreement

We entered into a Stock Lending and Subscription Agreement on February 6, 2020 with Danske Bank A/S, Orpha Pooling B.V. and Novo Holdings A/S, or the Lending Shareholders, pursuant to which we borrowed 3,071,673 existing ordinary shares, or the Lending Shares, from the Lending Shareholders through Danske Bank A/S as settlement agent in order for us to place such ordinary shares in a private placement. The Lending Shares were borrowed subject to an obligation for us to issue new ordinary shares of an equivalent number as the Lending Shares placed in this private placement, or the Listing Shares, and for Danske Bank A/S to use the proceeds from the sale of Lending Shares in the private placement to subscribe for the Listing Shares and deliver the Listing Shares to the Lending Shareholders. The Listing Shares were issued and delivered to the Lending Shareholders on February 11, 2020.

Capital Structure Adjustment

In preparation for our initial public offering in Denmark in November 2017, our capital structure was changed by merging the four then-existing share classes (A, B, C and W) into one combined ordinary share class (such capital structure adjustment the “Capital Structure Adjustment”). In connection with the Capital Structure Adjustment, our shares were converted into ordinary shares at a 1:1 ratio, provided that, since the company had not issued W-shares, there were no W-shares to convert. In order to account for the preferential rights attached to the Class B and C preference shares, a directed issue of 6,487,882 bonus shares using our free reserves was carried out at par value in favor of the preference shareholders. At the time of the Capital Structure Adjustment, no directors, members of our executive management and key employees held shares in the company except for Anders Hinsby (our former CEO) who held Class A shares through WoB Holding IVS (now WoB Holding ApS), and Thomas Kirkegaard Jensen who held Class A shares through Dare to Dream IVS (now Dare to Dream ApS), all of which were converted into ordinary shares in the ratio 1:1 in connection with the Capital Structure Adjustment. At the time of the Capital Structure Adjustment, some of our directors are affiliated with certain participating shareholders holding more than 10% of our shares. In connection with the Capital Structure Adjustment, Orpha Pooling B.V. received 1,306,726 bonus shares on November 2, 2017.

Capital Increases

On January 26, 2017, we completed two capital increases by issuing respectively (i) 534,007 C class preference shares to a number of our shareholders, including Novo Holdings A/S subscribing for 207,109 C class preference shares, Sunstone Life Science Ventures Fund II K/S subscribing for 97,307 C class preference shares and Cooperative Aescap Venture I U.A. subscribing for 84,837 C class preference shares, for gross proceeds of DKK 48.0 million (\$7.2 million), and (ii) 772,022 C class preference shares to our shareholders LSP V Coöperatieve U.A. (LSP V Coöperatieve U.A. transferred all of its shares to Orpha Pooling B.V. in connection with the capital increase) subscribing for 661,734 C class preference shares, Orpha Pooling B.V. subscribing for 55,144 C class preference shares and Cooperative Aescap Venture I U.A. subscribing for 55,144 C class preference shares, for gross proceeds of DKK 69.5 million (\$10.5 million) as Orpha Pooling B.V. paid in 25% of the subscription amount in connection with the capital increase and the remaining 75% of the subscription amount in September 2017.

On June 29, 2017, we completed a capital increase by issuing 435,640 C class preference shares to our shareholders Orpha Pooling B.V. subscribing for 408,068 C class preference shares and Cooperative Aescap

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Venture I U.A. subscribing for 27,572 C class preference shares, for gross proceeds of approximately DKK 39.2 million (approximately \$5.9 million).

On November 2, 2017, we merged the share classes into one share class and completed a capital increase by issuing 6,487,882 bonus shares (as a consequence of the merger of the share classes cancelling the preferential rights of class B and class C preference shares) to a number of our shareholders, including Novo Holdings A/S receiving 2,185,016 shares, Sunstone Life Science Ventures Fund II K/S receiving 1,031,290 shares, Cooperative Aescap Venture I U.A. receiving 1,008,790 shares and Orpha Pooling B.V. receiving 1,306,726 shares. See “—Capital Structure Adjustment”

On November 20, 2017, we completed a capital increase due to the exercise of our pre-IPO warrant programs by issuing 838,092 shares to a number of employees, directors and executive officers, including Anders Hinsby (our former Chief Executive Officer) subscribing for 180,846 shares, Anders Vadsholt (our current Chief Financial Officer) subscribing for 121,556 shares, Thomas Blaettler (our current Chief Medical Officer) subscribing for 108,502 shares, Thomas Kirkegaard Jensen (our current Chief Scientific Officer) subscribing for 156,535 shares, Georges Gemayel (the chairman of our board of directors) subscribing for 87,758 shares, Bo Jesper Hansen (a current director) subscribing for 29,445 shares, and Martin Bonde (a current director) subscribing for 42,884 shares, for gross proceeds of approximately DKK 1.16 million (approximately \$175,000).

Share-based Awards to Directors and Executive Officers

We have granted share-based awards to certain of our directors and executive officers. For more information regarding the share options granted to our directors and named executive officers see “Management—Compensation of Executive Officers and Directors.”

Employment Agreements and Indemnification Agreements

We have entered employment agreements with each of our executive officers and intend to enter into indemnification agreements with each of our executive officers and directors. For more information see “Management—Compensation of Executive Officers and Directors —Executive officers arrangements” and “Management—Insurance and indemnification.”

Policies and Procedures for Related Person Transactions

Prior to the global offering, we have not had a formal policy regarding approval of transactions with related parties. We have adopted a related person transaction policy setting forth the policies and procedures for the identification, review and approval or ratification of related person transactions. This policy covers, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and a related person were or will be participants and the amount involved exceeds \$120,000, including purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness and guarantees of indebtedness. In reviewing and approving any such transactions, our audit committee will consider all relevant facts and circumstances as appropriate, such as the purpose of the transaction, the availability of other sources of comparable products or services, whether the transaction is on terms comparable to those that could be obtained in an arm’s length transaction, management’s recommendation with respect to the proposed related person transaction, and the extent of the related person’s interest in the transaction.

DESCRIPTION OF SHARE CAPITAL AND ARTICLES OF ASSOCIATION

The following describes our issued share capital, summarizes the material provisions of our articles of association and highlights certain differences in corporate law in the Kingdom of Denmark and Delaware corporate law, the law under which many publicly listed companies in the United States are incorporated. Please note that this summary is not intended to be exhaustive. For further information, please refer to the full version of our articles of association, which are included as an exhibit to the registration statement of which this prospectus is a part.

Introduction

Set forth below is a summary of certain information concerning our share capital as well, as a description of certain provisions of our articles of association and relevant provisions of the DCA. The summary includes certain references to, and descriptions of, material provisions of our articles of association to be effective in connection with the consummation of the global offering and Danish law in force as of the date of this prospectus. The summary below contains only material information concerning our share capital and corporate status and does not purport to be complete and is qualified in its entirety by reference to our articles of association and applicable Danish law. Further, please note that as an ADS holder you will not be treated as one of our shareholders and will not have any shareholder rights.

General

We were incorporated on June 19, 2009 as a private limited liability company under Danish law and later converted into a Danish public limited liability company on October 20, 2017. We are registered with the Danish Business Authority (Erhvervsstyrelsen) in Copenhagen, Denmark under company registration number (CVR) no. 32266355. We were publicly listed on Nasdaq Copenhagen in November 2017. Our company has been established with the objectives of engaging in medical research, production and sale of such products and related business.

Our headquarters and principal executive offices are located at Ole Maaløes Vej 3, DK-2200 Copenhagen N, Denmark, and our telephone number is +45 39 17 82 72. Our website address is www.orphazyme.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus, and you should not consider any information contained in, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase ordinary shares or ADSs in the global offering. We have included our website address as an inactive textual reference only.

Development of Share Capital

As of November 2017, we had one class of shares (prior to this date we had multiple classes of shares). As of June 30, 2020, our registered, issued and fully paid outstanding share capital was DKK 27,044,929 distributed into 27,044,929 shares of nominal value DKK 1 each.

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The development of our share capital since December 31, 2016 and up to and including the date of this prospectus is set forth in the table below.

<u>Date of approval</u>	<u>Capital Increase, No. of Shares</u>	<u>Gross Proceeds, DKK000s</u>	<u>Share Capital, No. of Shares after change</u>	<u>Issued Share DKK Capital after change</u>
Share capital at December 31, 2016			A-shares: 125,000 B-shares: 2,050,208 C-shares: 1,185,333	3,360,541
2017				
Capital increase by cash contribution, January 26, 2017	534,007	48,060	A-shares: 125,000 B-shares: 2,050,208 C-shares: 1,719,340	3,894,548
Capital increase by cash contribution, January 26, 2017	772,022	69,482	A-shares: 125,000 B-shares: 2,050,208 C-shares: 2,491,362	4,666,570
Capital increase by cash contribution, June 29, 2017	435,640	39,208	A-shares: 125,000 B-shares: 2,050,208 C-shares: 2,927,002	5,102,210
Conversion into a public limited liability company, October 20, 2017	—	—	A-shares: 125,000 B-shares: 2,050,208 C-shares: 2,927,002	5,102,210
Consolidation of share classes, November 2, 2017	—	—	5,102,210	5,102,210
Issuance of bonus shares, November 2, 2017	6,487,882	—	11,590,092	11,590,092
Initial public offering, November 6, 2017	7,500,000	600,000	19,090,092	19,090,092
Exercise of warrants, November 20, 2017	838,092	1,161	19,928,184	19,928,184
2018				
Issuance of bonus shares, January 29, 2018	11,380	—	19,939,564	19,939,564
2019				
Issuance of bonus shares, January 31, 2019	26,060	—	19,965,624	19,965,624
Issuance of matching shares, March 4, 2019	19,175	19	19,984,799	19,984,799
2020				
Issuance of bonus shares, January 31, 2020	20,650	—	20,005,449	20,005,449
Capital increase by cash contribution, February 6, 2020	7,032,937	745,491	27,038,386	27,038,386
Exercise of restricted share units, March 27, 2020 ⁽¹⁾	4,616	282	27,043,002	27,043,002
Exercise of restricted share units, March 27, 2020 ⁽¹⁾	1,927	118	27,044,929	27,044,929
Exercise of restricted share units, March 27 2020 ⁽¹⁾	3,451	211	27,048,380	27,048,380
Vesting and exercise of matching shares, July 29, 2020	31,250	31	27,079,630	27,079,630
Exercise of restricted share units, March 27, 2020 ⁽¹⁾	1,927	118	27,081,557	27,081,557

(1) Share issue was approved by our board of directors on March 27, 2020 and subsequently registered with the Danish Business Authority following exercise by the respective directors.

Authorizations to Our Board of Directors

Our board of directors is authorized to increase our share capital as follows:

- In accordance with article 3.1 of our articles of association, our board of directors is, until March 26, 2025, authorized to increase the company's share capital in one or more issues of new shares without pre-emption rights for the company's existing shareholders by up to a nominal amount of DKK 10,815,000. The capital increase shall take place at market price as determined by the board of directors and shall be effected by cash payment, debt conversion or contribution in kind.
- In accordance with article 3.2 of our articles of association, our board of directors is, until November 2, 2022, authorized to increase our share capital in one or more issues without pre-emption rights for our existing shareholders by up to a nominal amount of DKK 1,300,000 in connection with the issue of new shares to members of our board of directors, our executives and/or our employees. The new shares shall be issued against cash payment at a subscription price to be determined by the board of directors, which may be below the market price.
- In accordance with article 3.3 of our articles of association, our board of directors is, until November 2, 2022, authorized to increase our share capital in one or more issues of new shares without preemption rights for our existing shareholders by up to a nominal amount of DKK 15,750,000 in connection with issues of bonus shares, and/or directed issues of new shares effected by cash payment, to Kansas Life Sciences Development Inc. and UCL Business PLC (or entities designated by them), respectively. The capital increase shall take place at par value, which will be below market price. The value of such new shares to be issued can in any case not exceed a maximum of \$2.5 million with a fixed exchange rate of DKK 6.30 per 1 USD based on the average closing price of the our ordinary shares on Nasdaq Copenhagen for the 30 days immediately prior to the date of issuance.
- In accordance with article 3.4 of our articles of association, our board of directors is, until January 25, 2025, authorized to increase our share capital in one or more issues of new shares with preemption rights for our existing shareholders by up to a nominal amount of DKK 25,000,000. The capital increase may be effected by cash payment or conversion of debt and shall take place at subscription price as determined by the board of directors which may be below the market price.

As of the date of this prospectus, our board of directors partially exercised the authorization in article 3.2 of our articles of association to increase our share capital following which a nominal value of DKK 62,346 of the authorization has been issued. In addition, our board of directors has partly exercised the authorization in article 3.3 to increase our share capital following which a nominal value of DKK 58,090 of the authorization has been issued.

Further, our board of directors is authorized on behalf of the company until March 26, 2025 to acquire our own shares for a total nominal value of up to 20% of our share capital for the time being, so long as the company's holding of treasury shares after such acquisition does not exceed 20% of the company's share capital. The price paid for such shares may not deviate by more than 10% from the share price quoted on Nasdaq Copenhagen at the time of acquisition.

As of June 30, 2020, the total number of additional shares our board of directors is authorized to issue was 52,781,192.

Our Shares

As of June 30, 2020, our registered, issued and outstanding share capital was DKK 27,044,929 and excludes up to 11,159 shares that may be issued upon the exercise of vested RSUs granted in 2019. In connection with the global offering, we intend to issue up to 7,616,146 ordinary shares (including ordinary shares in the form of ADSs), excluding the underwriters' option to purchase up to 1,142,421 additional ordinary shares (including ordinary shares in the form of ADSs). Each ADS will represent one ordinary share. The ADSs have been approved to be listed on the Nasdaq Global Select Market under the symbol "ORPH." The underlying shares will continue to be listed on Nasdaq Copenhagen under the symbol "ORPHA."

Initial settlement of the ADSs issued in the U.S. offering will take place on the consummation date of the U.S. offering through The Depository Trust Company, or DTC, in accordance with its customary settlement procedures for equity securities. Each person owning ADSs held through DTC must rely on the procedures thereof and on institutions that have accounts therewith to exercise any rights of a holder of the ADSs.

Pre-emptive Rights

If our shareholders at a general meeting resolve to increase our share capital by a cash contribution, section 162 of the DCA will apply. Under that section, shareholders have a pre-emptive right to subscribe for new shares in proportion to their existing shareholdings. However, the pre-emptive right may be derogated from by a majority comprising at least two-thirds of the votes cast, as well as at least two-thirds of the share capital represented at the general meeting, provided the share capital increase takes place at market price or nine-tenths of the votes cast, as well as at least nine-tenths of the share capital represented at the general meeting if the share capital increase takes place below market price, unless (i) such capital increase is directed at certain but not all shareholders (in which case all shareholders must consent); or (ii) such capital increase is directed at our employees whereby a majority comprising at least two-thirds of the votes cast, as well as at least two-thirds of the share capital represented at the general meeting is required. Further, the pre-emptive rights may be derogated from by an exercise of the board of directors of a valid authorization in our articles of association, provided that the share capital increase takes place at or above market price.

Shareholders' Register

We are obliged to maintain a shareholders' register (*Ejerbog*). The shareholders' register is maintained by Computershare A/S, Lottenborgvej 26 D, 1., DK-2800 Kgs. Lyngby, Denmark, our Danish share registrar and transfer agent. It is mandatory that the shareholders' register is maintained within the European Union and that it is available to public authorities.

Pursuant to the DCA, public and private limited liability companies are required to register with the Danish Business Authority information regarding shareholders who own at least 5% of the share capital or the voting rights. Pursuant to this provision, we file registrations with the Danish Public Shareholders' Register of the Danish Business Authority. Shareholders that exceed or fall below the ownership threshold must notify us, and we will subsequently file the information with the Danish Business Authority. Reporting is further required upon passing or falling below thresholds of 5%, 10%, 15%, 20%, 25%, 50%, 90%, and 100% as well as one-third and two-thirds of the votes or the share capital. This also applies to beneficial holders of our shares, such as holders of the ADSs.

Articles of Association and Danish Corporate Law

General Meetings and Voting Rights

Our general meetings shall be held in the Capital Region of Denmark. Our annual general meeting shall be held each year in due time for the audited and approved annual report to be received by the relevant

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authorities before the applicable statutory time limit. Not later than eight weeks before the contemplated date of the annual general meeting, we shall publish the date of the general meeting and the deadline for submitting requests for specific proposals to be included in the agenda.

Extraordinary general meetings shall be held when determined by our board of directors or requested by our auditor. Furthermore, our board of directors shall convene an extraordinary general meeting within two weeks of receipt of a written request from shareholders representing no less than 5% of the share capital containing specific proposals for the business to be transacted at such extraordinary general meeting.

General meetings shall be convened by our board of directors at least three weeks' and not more than five weeks' notice. The notice shall be published on our website. Furthermore, a notice of the general meeting shall be sent electronically to all shareholders recorded in our register of shareholders who have requested such notice.

In accordance with Danish law, the notice shall specify the time and place of the general meeting and the agenda containing the business to be transacted at the general meeting. If a proposal to amend our articles of association is to be considered at the general meeting, the main contents of the proposal shall be specified in the notice. Our general meetings shall be held in English. Our board of directors may decide to offer simultaneous interpretation into Danish. Documents prepared in connection with or following a general meeting shall be in English and, to the extent required by law or if decided by our board of directors, in Danish.

Every shareholder is entitled to have specific business transacted at the general meeting, provided that the shareholder submits a written request to that effect to our board of directors not later than six weeks before the date of the general meeting.

The right of a shareholder to attend a general meeting and to vote is determined by the shares held by the shareholder at the record date. The record date is one week before the general meeting. The shares held by each shareholder are determined at the record date based on the number of shares held by that shareholder as registered in our register of shareholders and any notification of ownership received by us for the purpose of registration in our register of shareholders, but which have not yet been registered.

At the general meeting each share of the nominal value of DKK 1 shall carry one vote. Our articles of association permit a person registered as a holder of our shares in VP Securities A/S and acting in a professional capacity to exercise on behalf of other natural or legal persons, including holders of ADSs representing our ordinary shares, voting rights attached to any such shares in a manner that is not identical to the exercise of the voting rights attached to our other shares held by such person.

A shareholder who is entitled to attend the general meeting pursuant to our articles of association and who wants to attend the general meeting shall notify us of his/her attendance no later than three days prior to the date of the general meeting. A shareholder may, subject to having notified us of his/her attendance in accordance with our articles of association, attend in person or by proxy, and the shareholder or the proxy may attend together with an adviser.

The right to vote may be exercised by a written and dated instrument of proxy in accordance with applicable laws. Our board of directors may be appointed as proxy. A shareholder who is entitled to participate in the general meeting according to our articles of association may vote by postal vote in accordance with the DCA. Such postal votes shall be received by us no later than the business day before the general meeting. Postal votes cannot be withdrawn. In accordance with Danish law, the notice shall specify the time and place of the general meeting and the agenda containing the business to be transacted at the general meeting. If a proposal to amend our articles of association is to be considered at the general meeting, the main contents of the proposal shall be specified in the notice.

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Our articles of association permit our board to decide to hold general meetings partially or fully by electronic means in accordance with our articles of association and applicable Danish law.

Resolutions by the General Meetings and Amendments to the Articles of Association

Resolutions at general meetings shall be passed by a simple majority of votes cast, unless otherwise prescribed by law or by our articles of association. Adoption of changes to our articles of association, our dissolution, merger or demerger requires that the resolution is adopted by at least 2/3 of the votes cast as well as the share capital represented at the general meeting, unless applicable laws prescribe stricter or less strict adoption requirements or applicable laws confer specific authority to our board of directors or other bodies. The provisions in our articles of association relating to a change of the rights of shareholders or a change to the capital are not more stringent than required by the DCA.

Redemption and Conversion Provisions

Except as provided for in the DCA, no shareholder is under an obligation to have its shares redeemed in whole or in part by us or by any third party, and none of the shares carry any redemption or conversion rights or any other special rights.

Dissolution and Liquidation

In the event of dissolution and liquidation, our shareholders are entitled to participate in the distribution of assets in proportion to their nominal shareholdings after payment of our creditors.

Indication of Takeover Bids

No takeover offers have been made by any third party in respect of our shares during the past or current financial year. Our articles of association do not contain provisions that are likely to have the effect of delaying, deferring or preventing a change in control of our company.

Provisions as to the Level of Equity Investments to be Notified to Us and the Danish Authorities

Shareholders in Danish companies with shares admitted to trading and official listing on Nasdaq Copenhagen are, pursuant to Section 38 of the Danish Capital Markets Act, required to give simultaneous notice to the company and the Danish Financial Supervisory Authority, or the FSA, of the shareholding in the company, when the shareholding reaches, exceeds or falls below thresholds of 5%, 10%, 15%, 20%, 25%, 50% or 90% and limits of one-third or two-thirds of the voting rights or nominal value of the total share capital.

A shareholder in a company means a natural or legal person who, directly or indirectly, holds: (i) shares in the company on behalf of itself and for its own account; (ii) shares in the company on behalf of itself, but for the account of another natural or legal person; or (iii) depository receipts, where such holder is considered a shareholder in relation to the underlying shares represented by the depository receipts.

The duty to notify set forth above further applies to natural and legal persons who are entitled to acquire, sell or exercise voting rights which are:

- (i) held by a third party with whom that natural or legal person has concluded an agreement, which obliges them to adopt, by concerted exercise of the voting rights they hold, a lasting common policy towards the management of the issuer in question (common duty to inform for all parties to the agreement);

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- (ii) held by a third party under an agreement concluded with that natural or legal person providing for the temporary transfer of the voting rights in question in return for consideration;
- (iii) attached to shares which are lodged as collateral for that natural or legal person, provided the person controls the voting rights and declares an intention of exercising them;
- (iv) attached to shares in which that natural or legal person has a lifelong right of disposal;
- (v) held, or may be exercised within the meaning of (i) to (iv), by an undertaking controlled by that person or entity;
- (vi) attached to shares deposited with that natural or legal person and which the person can exercise at its own discretion in the absence of specific instructions from the shareholders;
- (vii) held by a third party in its own name on behalf of that person; or
- (viii) exercisable by that person through a proxy where that person may exercise the voting rights at its discretion in the absence of specific instructions of the shareholder.

The duty to notify set forth above also applies to anyone, who directly or indirectly holds (a) financial instruments that afford the holder either an unconditional right to acquire or the discretion as to its right to acquire existing shares (e.g., share options); and/or (b) financial instruments based on existing shares and with an economic effect equal to that of the financial instruments mentioned in (a), regardless of them not affording the right to purchase existing shares (e.g., the ADSs or, under the circumstances, cash-settled derivatives linked to the value of our shares or ADSs representing our shares). Holding these kinds of financial instruments counts towards the thresholds mentioned above and may thus trigger a duty to notify by themselves or when accumulated with a holding of shares or ADSs. The FSA will in certain cases publish information concerning sanctions imposed, including, as a general rule, the name of the shareholder in question, as a consequence of non-compliance with the above rules.

The notification shall be made promptly but not later than four weekdays after the shareholder was aware or should have become aware of the completion of the transaction, and in accordance with the provisions of Danish Executive Order on Major Shareholders. The shareholder is deemed to have become aware of the completion of the transaction no later than two weekdays after the completion of the transaction. The shareholder shall disclose the change in voting rights and shares, including the number of voting rights (and the division of voting rights between share classes, if applicable) and shares held directly or indirectly by the shareholder following the transaction. The notification shall further state the transaction date on which the threshold was reached or no longer reached and the identity of the shareholder as well as the identity of any natural or legal person with the right to vote on behalf of the shareholder and in the case of a group structure, the chain of controlled undertakings through which voting rights are effectively held. The information shall be notified to the company and simultaneously submitted electronically to the FSA. Failure to comply with the notification requirements is punishable by fine or suspension of voting rights in instances of gross or repeated non-compliance.

When an obligation to notify rests on more than one natural or legal person, the notification may be made through a joint notification. However, use of a joint notification does not exempt the individual shareholders or natural or legal persons from their responsibilities in connection with the obligation to notify or the contents of the notification.

After receipt of the notification, but not later than three weekdays thereafter, the company shall publish the contents of the notification.

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Furthermore, the general duty of notification under Section 55 of the DCA in respect of notification of significant holdings (similar to the thresholds set out in the Danish Capital Markets Act Section 38) applies, including when the limit of 100% of the share capital's voting rights or nominal value of the company is reached or are no longer reached.

The EU Short Selling Regulation (EU Regulation 236/2012) Includes Certain Notification Requirements in connection with Short Selling of Shares Admitted to Trading on a Trading Venue (including Nasdaq Copenhagen) and Securities or Derivatives that Relate to Such Shares (including the ADSs).

When a natural or legal person reaches, exceeds or falls below a net, short position of 0.2% of the issued share capital of a company that has shares admitted to trading on a trading venue (which includes the ADSs), such person shall make a private notification (i.e. such notification will not be made public) to the relevant competent authority, which in Denmark is the FSA. The obligation to notify the FSA, moreover, applies in each case where the short position reaches, exceeds or falls below 0.1% above the 0.2% threshold. In addition, when a natural or legal person reaches or falls below a net short position of 0.5% of the issued share capital of a company that has shares admitted to trading on a trading venue in the European Union and each 0.1% above that, such person shall make a public notification of its net short position via the FSA. The notification requirements apply to both physical and synthetic short positions. In addition uncovered short selling (naked short selling) of shares admitted to trading on a trading venue is prohibited. Furthermore, on March 16, 2020, the European Securities and Markets Authority, or ESMA, issued a decision which temporarily lowered the reporting threshold from 0.2% to 0.1% for net short position holders in shares traded on a trading venue in the European Union for three months due to COVID-19's impact on financial markets. On September 16, 2020, ESMA issued a decision to renew the temporary requirement to temporarily lower the reporting threshold from 0.2% to 0.1% for net short position holders for an additional three months, which entails that the lowered threshold applied until December 18, 2020 to any natural or legal person, irrespective of their country of residence.

Mandatory Tender Offers

The Danish Capital Markets Act (Part 8) and the Danish Executive Order on Takeover include rules concerning public offers for the acquisition of shares admitted to trading on a regulated market (including Nasdaq Copenhagen).

If a shareholding is transferred, directly or indirectly, in a company with one or more share classes admitted to trading on a regulated market, to an acquirer or to persons acting in concert with such acquirer, the acquirer and the persons acting in concert with such acquirer, if applicable, shall give all shareholders of the company the option to dispose of their shares on identical terms, if the acquirer or the persons acting in concert with such acquirer gains control over the company as a result of the transfer.

Control as mentioned above exists if the acquirer or persons acting in concert with such acquirer, directly or indirectly, holds at least one-third of the voting rights in the company, unless it can be clearly proven in special cases that such ownership does not constitute control. An acquirer or persons acting in concert with such acquirer who does not hold at least one-third of the voting rights in a company, nevertheless has control when the acquirer has or persons acting in concert with such acquirer have:

- the right to control at least one-third of the voting rights in the company according to an agreement with other investors; or
- the right to appoint or dismiss a majority of the members of the central governing body.

Voting rights attached to treasury shares shall be included in the calculation of voting rights.

The Danish Capital Markets Act contains specific exemptions from the obligation to submit a mandatory takeover offer, including transfers of shares by inheritance or transfer within the same group and as a

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result of a creditor's debt enforcement proceedings. Exemptions from the mandatory tender offer rules may be granted under special circumstances by the FSA.

Comparison of Danish Corporate Law and Our Articles of Association and Delaware Corporate Law

The following comparison between Danish corporate law, which applies to us, and Delaware corporate law, the law under which many publicly listed companies in the United States are incorporated, discusses shareholder rights and obligations and certain additional matters. This summary is subject to Danish law, including the DCA, and Delaware corporate law, including the Delaware General Corporation Law. Further, please note that if you are a holder of the ADSs, then you are not treated as one of our shareholders under such laws and do not have any shareholder rights in Orphazyme A/S.

Shareholder Rights

Notice of Meeting

Denmark. According to the DCA and as implemented in our articles of association, general meetings in listed limited liability companies shall be convened by the board of directors with a minimum of three weeks' notice and a maximum of five weeks' notice. A convening notice shall also be forwarded to shareholders recorded in our shareholders' register who have requested such notification. There are specific requirements as to the information and documentation required to be disclosed in connection with the convening notice.

Delaware. Under Delaware law, unless otherwise provided in the certificate of incorporation or bylaws, written notice of any meeting of the stockholders must be given to each stockholder entitled to vote at the meeting not less than ten nor more than 60 days before the date of the meeting and shall specify the place, date, hour and purpose or purposes of the meeting.

Voting Rights

Denmark. Each share confers the right to cast one vote at the general meeting of shareholders, unless the articles of association provide otherwise. Our articles of association allow a person registered as a holder of our shares in VP Securities A/S and acting in a professional capacity on behalf of other natural or legal persons, including holders of ADS representing our ordinary shares to exercise voting rights attached to any such shares in a manner that is not identical to the exercise of the voting rights attached to our other shares held by such person. The right of a shareholder to vote is determined by the shares held by the shareholder at the record date. The record date is one week before the general meeting. Each holder of shares may cast as many votes as it holds shares. Voting instructions may be given only in respect of a number of ADSs representing an integral number of shares or other deposited securities. Shares that are held by us or our direct or indirect subsidiaries do not confer the right to vote.

Delaware. Under the Delaware General Corporation Law, each stockholder is entitled to one vote per share of stock, unless the certificate of incorporation provides otherwise. In addition, the certificate of incorporation may provide for cumulative voting at all elections of directors of the corporation, or at elections held under specified circumstances. Either the certificate of incorporation or the bylaws may specify the number of shares and/or the amount of other securities that must be represented at a meeting in order to constitute a quorum, but in no event can a quorum consist of less than one-third of the shares entitled to vote at a meeting.

Stockholders as of the record date for the meeting are entitled to vote at the meeting, and the board of directors may fix a record date that is no more than 60 nor less than 10 days before the date of the meeting, and if no record date is set then the record date is the close of business on the day next preceding the day on which notice is given, or if notice is waived then the record date is the close of business on the day next preceding the

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day on which the meeting is held. The determination of the stockholders of record entitled to notice or to vote at a meeting of stockholders shall apply to any adjournment of the meeting, but the board of directors may fix a new record date for the adjourned meeting.

Shareholder Proposals

Denmark. According to the DCA and our articles of association, extraordinary general meetings of shareholders will be held whenever our board of directors or our appointed auditor requires. In addition, one or more shareholders representing at least 5% of the registered share capital of the company may, in writing, require that a general meeting be convened. If such a demand is made, the board of directors shall convene the general meeting with three to five weeks' notice within 14 days thereafter.

All shareholders have the right to present proposals for adoption at the annual general meeting, provided that the proposals are submitted at least six weeks prior to the meeting. In the event that the request is made at a later date, the board of directors will determine whether the proposals were made in due time to be included on the agenda.

Delaware. Delaware law does not specifically grant stockholders the right to bring business before an annual or special meeting of stockholders. However, if a Delaware corporation is subject to the SEC's proxy rules, a stockholder who owns at least \$2,000 in market value, or 1% of the corporation's securities entitled to vote, may propose a matter for a vote at an annual or special meeting in accordance with those rules.

Action by Written Consent

Denmark. Under Danish law, shareholders may take action and pass resolutions by written consent if such consent is unanimous. However, for a listed company, this method of adopting resolutions is generally not feasible.

Delaware. Although permitted by Delaware law, publicly listed companies do not typically permit stockholders of a corporation to take action by written consent.

Appraisal Rights

Denmark. The concept of appraisal rights does not exist under Danish law, except in connection with statutory redemption rights according to the DCA.

According to Section 73 of the DCA, a minority shareholder may require a majority shareholder that holds more than nine-tenths of the company's registered share capital and voting rights to redeem his or her shares. Similarly, shares in a company may be redeemed in whole or in part by a shareholder holding more than nine-tenths of the shares and the corresponding voting rights in the company, according to Section 70 of the DCA. In the event that the parties cannot agree to the redemption squeeze out price, this shall be determined by an independent evaluator appointed by the court. Additionally, there are specific regulations in Sections 249, 267, 285 and 305 of the DCA that require compensation in the event of national or cross-border mergers and demergers. Moreover, shareholders who vote against a cross-border merger or demerger are, according to Sections 286 and 306 of the DCA, entitled to have their shares redeemed.

Delaware. The Delaware General Corporation Law provides for stockholder appraisal rights, or the right to demand payment in cash of the judicially determined fair value of the stockholder's shares, in connection with certain mergers and consolidations.

Shareholder Suits

Denmark. Under Danish law, only a company itself can bring a civil action against a third party; an individual shareholder does not have the right to bring an action on behalf of a company. However, if

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shareholders representing at least one-tenth of the share capital have opposed at a general meeting a decision to grant discharge to a member of our board of directors or our executive management or refrain from bringing law suits against, among other persons, a member of our board of directors or executive management, a shareholder may bring a derivative action on behalf of our company against, among other persons, a member of our board of directors or executive management. An individual shareholder may, in its own name, have an individual right to take action against such third party in the event that the cause for the liability of that third party also constitutes a negligent act directly against such individual shareholder.

Delaware. Under the Delaware General Corporation Law, a stockholder may bring a derivative action on behalf of the corporation to enforce the rights of the corporation. An individual also may commence a class action suit on behalf of himself and other similarly situated stockholders where the requirements for maintaining a class action under Delaware law have been met. A person may institute and maintain such a suit only if that person was a stockholder at the time of the transaction which is the subject of the suit. In addition, under Delaware case law, the plaintiff normally must be a stockholder at the time of the transaction that is the subject of the suit and throughout the duration of the derivative suit. Delaware law also requires that the derivative plaintiff make a demand on the directors of the corporation to assert the corporate claim before the suit may be prosecuted by the derivative plaintiff in court, unless such a demand would be futile.

Repurchase of Shares

Denmark. Danish limited liability companies may not subscribe for newly issued shares in their own capital. Such companies may, however, according to the DCA Sections 196-201, acquire fully paid shares of themselves, provided that the board of directors has been authorized to do so by the shareholders at a general meeting. Such authorization can only be given for a maximum period of five years and the authorization shall fix (i) the maximum value of the shares and (ii) the minimum and the highest amount that the company may pay for the shares. Such purchase of shares may generally only be acquired using distributable reserves. In addition, the board of directors may, on behalf of the company, acquire the company's own shares, without authorization, in case it is necessary to avoid a considerable and imminent detrimental effect on the company and provided certain conditions are met. In case the company has acquired its own shares under such circumstances the board of directors is obligated to inform the shareholders of such acquisition at the next general meeting. See “—Authorizations to our Board of Directors.”

Delaware. Under the Delaware General Corporation Law, a corporation may purchase or redeem its own shares unless the capital of the corporation is impaired or the purchase or redemption would cause an impairment of the capital of the corporation. A Delaware corporation may, however, purchase or redeem out of capital any of its preferred shares or, if no preferred shares are outstanding, any of its own shares if such shares will be retired upon acquisition and the capital of the corporation will be reduced in accordance with specified limitations.

Anti-Takeover Provisions

Denmark. Under Danish law, it is possible to implement limited protective anti-takeover measures. Such provisions may include, among other things, (i) different share classes with different voting rights and (ii) notification requirements concerning participation in general meetings. We have currently not adopted any such provisions, except for the notification requirements concerning participation in general meetings. See description above under the caption “—Articles of Association and Danish Corporate Law—General Meetings and Voting Rights.”

Delaware. In addition to other aspects of Delaware law governing fiduciary duties of directors during a potential takeover, the Delaware General Corporation Law also contains a business combination statute that protects Delaware companies from hostile takeovers and from actions following the takeover by prohibiting some transactions once an acquirer has gained a significant holding in the corporation.

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Section 203 of the Delaware General Corporation Law prohibits “business combinations,” including mergers, sales and leases of assets, issuances of securities and similar transactions by a corporation or a subsidiary with an interested stockholder that beneficially owns 15% or more of a corporation’s voting stock, within three years after the person becomes an interested stockholder, unless:

- the transaction that will cause the person to become an interested stockholder is approved by the board of directors of the target prior to the transaction;
- after the completion of the transaction in which the person becomes an interested stockholder, the interested stockholder holds at least 85% of the voting stock of the corporation not including shares owned by persons who are directors and officers of interested stockholders and shares owned by specified employee benefit plans; or
- after the person becomes an interested stockholder, the business combination is approved by the board of directors of the corporation and holders of at least 66.67% of the outstanding voting stock, excluding shares held by the interested stockholder.

A Delaware corporation may elect not to be governed by Section 203 by a provision contained in the original certificate of incorporation of the corporation or an amendment to the original certificate of incorporation or to the bylaws of the company, which amendment must be approved by a majority of the shares entitled to vote and may not be further amended by the board of directors of the corporation. Such an amendment is not effective until 12 months following its adoption.

Inspection of Books and Records

Denmark. According to Section 150 of the DCA, a shareholder may, at the annual general meeting or at a general meeting whose agenda includes such item, request an inspection of the company’s books regarding specific issues concerning the management of the company or specific annual reports. If approved by shareholders with a simple majority, one or more investigators are elected. If the proposal is not approved by a simple majority but 25% of the share capital votes in favor of the proposal, then any shareholder may, no later than four weeks after the general meeting, request the bankruptcy court for the district in which the company’s registered office is situated to appoint investigators.

Delaware. Under the Delaware General Corporation Law, any stockholder may inspect certain of the corporation’s books and records, for any proper purpose, during the corporation’s usual hours of business.

Pre-Emptive Rights

Denmark. If our shareholders at a general meeting resolve to increase our share capital by a cash contribution, section 162 of the DCA will apply. Under that section, shareholders have a pre-emptive right to subscribe for new shares in proportion to their existing shareholdings. However, the pre-emptive right may be derogated from by a majority comprising at least two-thirds of the votes cast, as well as at least two-thirds of the share capital represented at the general meeting, provided the share capital increase takes place at market price or nine-tenths of the votes cast, as well as at least nine-tenths of the share capital represented at the general meeting if the share capital increase takes place below market price, unless (i) such capital increase is directed at certain but not all shareholders (in which case all shareholders must consent); or (ii) such capital increase is directed at our employees whereby a majority comprising at least two-thirds of the votes cast, as well as at least two-thirds of the share capital represented at the general meeting is required. Further, the pre-emptive rights may be derogated from by an exercise of the board of directors of a valid authorization in our articles of association, provided that the share capital increase takes place at or above market price. The board of directors may resolve to increase our share capital without pre-emptive subscription rights for existing shareholders pursuant to the authorizations described above under the caption “—Authorizations to our Board of Directors.”

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Unless future issuances of new shares are registered under the Securities Act or with any authority outside Denmark, U.S. shareholders and shareholders in jurisdictions outside Denmark may be unable to exercise their pre-emptive subscription rights under the law of their respective jurisdictions, including the U.S. securities law.

Delaware. Under the Delaware General Corporation Law, stockholders have no pre-emptive rights to subscribe for additional issues of stock or to any security convertible into such stock unless, and to the extent that, such rights are expressly provided for in the certificate of incorporation.

Dividends

Denmark. Under Danish law, the distribution of ordinary and interim dividends requires the approval of a company's shareholders at a company's general meeting. In addition the shareholders may authorize the board of directors to distribute interim dividends. We may only pay out dividends from our distributable reserves, which are defined as results from operations carried forward and reserves that are not bound by law after deduction of loss carried forward. It is possible under Danish law to pay out interim dividends. The decision to pay out interim dividends shall be accompanied by a balance sheet, and the board of directors determines whether it will be sufficient to use the statement of financial position from the annual report or if an interim statement of financial position for the period from the annual report period until the interim dividend payment shall be prepared. If the decision to distribute interim dividends is passed more than six months after the date of the statement of financial position as set out in our latest adopted annual report, an interim statement of financial position must be prepared and reviewed by our auditor. The statement of financial position or the interim statement of financial position, as applicable, must show that sufficient funds are available for distribution. Our general meeting of shareholders cannot resolve to distribute dividends at an amount exceeding the amount recommended or approved by our board of directors. Moreover, ordinary dividends and interim dividends may only be made out of distributable reserves and may not exceed what is considered sound and adequate with regard to our financial condition or be to the detriment of our creditors.

Delaware. Under the Delaware General Corporation Law, a Delaware corporation may pay dividends out of its surplus (the excess of net assets over capital), or in case there is no surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year (provided that the amount of the capital of the corporation is not less than the aggregate amount of the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets). In determining the amount of surplus of a Delaware corporation, the assets of the corporation, including stock of subsidiaries owned by the corporation, must be valued at their fair market value as determined by the board of directors, without regard to their historical book value. Dividends may be paid in the form of shares, property or cash.

Shareholder Vote on Certain Reorganizations

Denmark. Under Danish law, all amendments to the articles of association shall be approved by the general meeting of shareholders with at least two-thirds of the votes cast and two-thirds of the share capital represented at the general meeting, unless applicable laws prescribe stricter or less strict adoption requirements or applicable laws confer specific authority to the board of directors or other bodies. The same applies to solvent liquidations, mergers with the company as the discontinuing entity, mergers with the company as the continuing entity if shares are issued in connection therewith and demergers. Under Danish law, it is debatable whether the shareholders must approve a decision to sell all or virtually all of the company's business/assets.

Delaware. Under the Delaware General Corporation Law, the vote of a majority of the outstanding shares of capital stock entitled to vote thereon generally is necessary to approve a merger or consolidation or the sale of all or substantially all of the assets of a corporation. The Delaware General Corporation Law permits a corporation to include in its certificate of incorporation a provision requiring for any corporate action the vote of a larger portion of the stock or of any class or series of stock than would otherwise be required. However, under

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the Delaware General Corporation Law, no vote of the stockholders of a surviving corporation to a merger is needed, unless required by the certificate of incorporation, if (1) the agreement of merger does not amend in any respect the certificate of incorporation of the surviving corporation, (2) the shares of stock of the surviving corporation are not changed in the merger and (3) the number of ordinary shares of the surviving corporation into which any other shares, securities or obligations to be issued in the merger may be converted does not exceed 20% of the surviving corporation's shares outstanding immediately prior to the effective date of the merger. In addition, stockholders may not be entitled to vote in certain mergers with other corporations that own 90% or more of the outstanding shares of each class of stock of such corporation, but the stockholders will be entitled to appraisal rights.

Mandatory Redemption of Shares

Denmark: Where a shareholder holds more than nine-tenths of the shares in a company and a corresponding proportion of the voting rights, such shareholder may, pursuant to the DCA, Section 70, demand that the other shareholders have their shares redeemed by that shareholder. In this case, the other shareholders must be requested, under the rules governing notices for general meeting, to transfer their shares to the shareholder within four weeks after the request to transfer their shares. In addition, the other shareholders shall through the Danish Business Authority's IT system be requested to transfer their shares within the same four-week period. Specific requirements apply to the contents of the notices to the other shareholders regarding the redemption. If the redemption price cannot be agreed upon, the redemption price must be determined by an independent expert appointed by the court in the jurisdiction of the company's registered office in accordance with the provisions of the DCA. However, the redemption price will be deemed fair under any circumstances, provided that (i) the redemption price is equal to the consideration paid by the bidder in connection with a voluntary tender offer by which the bidder obtained at least 90% of the voting rights or (ii) the redemption price is equal to the consideration paid by the bidder in connection with a mandatory tender offer. To the extent any minority shareholders have not transferred their shares to the acquiring shareholder before the expiry of the four-week period, the redeeming shareholder shall pay the redemption price to the remaining minority shareholders through the securities deposit. Upon such payment through the securities deposit, the minority shareholders will have been redeemed and the minority shareholders shall in such case through the Danish Business Authority's IT system be notified that the right to require determination of the redemption price by the independent expert expires at the end of a period, which cannot be less than three months pursuant to the DCA, Section 72.

Furthermore, where a shareholder holds more than nine-tenths of the shares in a company and a corresponding proportion of the voting rights, the other shareholders may require such shareholder to acquire their shares pursuant to Section 73 of the DCA. If the redemption price cannot be agreed upon, the redemption price must be determined by an independent expert appointed by the court in the jurisdiction of the company's registered office in accordance with the provisions of the DCA. Expenses relating to the determination of the redemption price must be paid by the shareholder requesting such determination. If the expert's valuation is higher than the price offered by the redeeming shareholder, the court may order the redeeming shareholder to pay the expenses relating to determination of the redemption price in full or in part.

Delaware: The Delaware General Corporation Law provides for stockholder appraisal rights, or the right to demand payment in cash of the judicially determined fair value of the stockholder's shares, in connection with certain mergers and consolidations.

Amendments to Governing Documents

Denmark. All resolutions made by the general meeting may be adopted by a simple majority of the votes, subject only to the mandatory provisions of the DCA and the articles of association. Resolutions concerning all amendments to the articles of association must be passed by two-thirds of the votes cast as well as two-thirds of the share capital represented at the general meeting, unless applicable laws prescribe stricter or less strict adoption requirements or applicable laws confer specific authority to the board of directors or other bodies.

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Certain resolutions, which limit a shareholder's ownership or voting rights, are subject to approval by at least a nine-tenth majority of the votes cast and the share capital represented at the general meeting. Decisions to impose any or increase any obligations of the shareholders towards the company require unanimity.

Delaware. Under the Delaware General Corporation Law, a corporation's certificate of incorporation may be amended only if adopted and declared advisable by the board of directors and approved by a majority of the outstanding shares entitled to vote, and the bylaws may be amended with the approval of a majority of the outstanding shares entitled to vote and may, if so provided in the certificate of incorporation, also be amended by the board of directors.

RSUs

As of the date of this prospectus there were 43,951 RSUs outstanding and not exercised, of which (i) 5,781 vested following our annual meeting on March 26, 2020 and are now exercisable until 12 months following such annual meeting and (ii) 15,177 were granted in March 2020 and will vest following our annual general meeting in 2021 and will be exercisable for a period of 12 months following such annual general meeting in 2021. In addition, 22,993 RSUs were granted in September 2020 and will vest following our annual general meeting in 2021 and will be exercisable for a period of 12 months following such annual general meeting, such exercise being contingent on the RSU holder not exercising the RSUs granted to him or her in March 2020, and the RSUs granted in March 2020 will subsequently lapse and no longer be exercisable. See "Management—Equity Plans."

LTIP

As of the date of this prospectus there were 148,538 Matching Shares that were granted and unvested, which will vest on January 1, 2021. In addition, there were up to 760,594 Performance Shares granted, of which up to (i) 86,700 will vest on November 16, 2021; up to (ii) 125,000 will vest on July 29, 2023; and up to (iii) 548,894 will vest on January 1, 2024, respectively, in each case the total number of Performance Shares being allocated upon vesting is dependent on certain performance criteria. We may deliver Matching Shares and Performance Shares under our LTIP by a variety of means, including by way of delivering treasury shares or directed issues of shares and/or bonus shares. See "Management—Equity Plans."

Transfer Agent and Registrar

The transfer agent and registrar for our shares is Computershare A/S, Lottenborgvej 26 D, 1., DK-2800 Kgs. Lyngby, Denmark. The Bank of New York Mellon will serve as the depositary, registrar and transfer agent for the ADSs.

DESCRIPTION OF AMERICAN DEPOSITARY SHARES

American Depositary Shares

The Bank of New York Mellon, as depositary, will register and deliver ADSs. Each ADS will represent one ordinary share (or a right to receive one ordinary share) deposited with Danske Bank A/S, as custodian for the depositary in the Kingdom of Denmark. Each ADS will also represent any other securities, cash or other property that may be held by the depositary. The deposited shares together with any other securities, cash or other property held by the depositary are referred to as the deposited securities. The depositary's office at which the ADSs will be administered and its principal executive office are located at 240 Greenwich Street, New York, New York 10286.

You may hold ADSs either (A) directly (i) by having an American Depositary Receipt, also referred to as an ADR, which is a certificate evidencing a specific number of ADSs, registered in your name, or (ii) by having uncertificated ADSs registered in your name, or (B) indirectly by holding a security entitlement in ADSs through your broker or other financial institution that is a direct or indirect participant in DTC. If you hold ADSs directly, you are a registered ADS holder, also referred to as an ADS holder. This description assumes you are an ADS holder. If you hold the ADSs indirectly, you must rely on the procedures of your broker or other financial institution to assert the rights of ADS holders described in this section. You should consult with your broker or financial institution to find out what those procedures are.

Registered holders of uncertificated ADSs will receive statements from the depositary confirming their holdings.

As an ADS holder, we will not treat you as one of our shareholders and you will not have shareholder rights. Danish law governs shareholder rights. The depositary will be the holder of the shares underlying your ADSs. As a registered holder of ADSs, you will have ADS holder rights. A deposit agreement among us, the depositary, ADS holders and all other persons indirectly or beneficially holding ADSs sets out ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs.

The following is a summary of the material provisions of the deposit agreement. For more complete information, you should read the entire deposit agreement and the form of ADR. Directions on how to obtain copies of those documents are provided in the section titled "Where You Can Find Additional Information."

Dividends and Other Distributions

How Will You Receive Dividends and Other Distributions on the Shares?

The depositary has agreed to pay or distribute to ADS holders the cash dividends or other distributions it or the custodian receives on shares or other deposited securities, upon payment or deduction of its fees and expenses. You will receive these distributions in proportion to the number of shares your ADSs represent.

Cash

The depositary will convert any cash dividend or other cash distribution we pay on the shares into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If that is not possible or if any government approval is needed and cannot be obtained, the deposit agreement allows the depositary to distribute the foreign currency only to those ADS holders to whom it is possible to do so. It will hold the foreign currency it cannot convert for the account of the ADS holders who have not been paid. It will not invest the foreign currency and it will not be liable for any interest.

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Before making a distribution, any withholding taxes, or other governmental charges that must be paid will be deducted. See “Taxation.” The depositary will distribute only whole U.S. dollars and cents and will round fractional cents to the nearest whole cent. *If the exchange rates fluctuate during a time when the depositary cannot convert the foreign currency, you may lose some of the value of the distribution.*

Shares

The depositary may distribute additional ADSs representing any shares we distribute as a dividend or free distribution. The depositary will only distribute whole ADSs. It will sell shares which would require it to deliver a fraction of an ADS (or ADSs representing those shares) and distribute the net proceeds in the same way as it does with cash. If the depositary does not distribute additional ADSs, the outstanding ADSs will also represent the new shares. The depositary may sell a portion of the distributed shares (or ADSs representing those shares) sufficient to pay its fees and expenses in connection with that distribution.

Rights to Purchase Additional Shares

If we offer holders of our securities any rights to subscribe for additional shares or any other rights, the depositary may (i) exercise those rights on behalf of ADS holders, (ii) distribute those rights to ADS holders or (iii) sell those rights and distribute the net proceeds to ADS holders, in each case after deduction or upon payment of its fees and expenses. To the extent the depositary does not do any of those things, it will allow the rights to lapse. *In that case, you will receive no value for them.* The depositary will exercise or distribute rights only if we ask it to and provide satisfactory assurances to the depositary that it is legal to do so. If the depositary will exercise rights, it will purchase the securities to which the rights relate and distribute those securities or, in the case of shares, new ADSs representing the new shares, to subscribing ADS holders, but only if ADS holders have paid the exercise price to the depositary. U.S. securities laws may restrict the ability of the depositary to distribute rights or ADSs or other securities issued on exercise of rights to all or certain ADS holders, and the securities distributed may be subject to restrictions on transfer.

Other Distributions

The depositary will send to ADS holders anything else we distribute on deposited securities by any means it thinks is legal, fair and practical. If it cannot make the distribution in that way, the depositary has a choice. It may decide to sell what we distributed and distribute the net proceeds, in the same way as it does with cash. Or, it may decide to hold what we distributed, in which case ADSs will also represent the newly distributed property. However, the depositary is not required to distribute any securities (other than ADSs) to ADS holders unless it receives satisfactory evidence from us that it is legal to make that distribution. The depositary may sell a portion of the distributed securities or property sufficient to pay its fees and expenses in connection with that distribution. U.S. securities laws may restrict the ability of the depositary to distribute securities to all or certain ADS holders, and the securities distributed may be subject to restrictions on transfer.

The depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADS holders. We have no obligation to register ADSs, shares, rights or other securities under the Securities Act. We also have no obligation to take any other action to permit the distribution of ADSs, shares, rights or anything else to ADS holders. *This means that you may not receive the distributions we make on our shares or any value for them if it is illegal or impractical for us to make them available to you.*

Deposit, Withdrawal and Cancellation

How are ADSs Issued?

The depositary will deliver ADSs if you or your broker deposits shares or evidence of rights to receive shares with the custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will register the appropriate number of ADSs in the names you request and will deliver the ADSs to or upon the order of the person or persons that made the deposit.

How Can ADS Holders Withdraw the Deposited Securities?

You may surrender your ADSs to the depositary for the purpose of withdrawal. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will deliver the shares and any other deposited securities underlying the ADSs to the ADS holder or a person the ADS holder designates at the office of the custodian. Or, at your request, risk and expense, the depositary will deliver the deposited securities at its office, if feasible. However, the depositary is not required to accept surrender of ADSs to the extent it would require delivery of a fraction of a deposited share or other security. The depositary may charge you a fee and its expenses for instructing the custodian regarding delivery of deposited securities.

How do ADS Holders Interchange Between Certificated ADSs and Uncertificated ADSs?

You may surrender your ADR to the depositary for the purpose of exchanging your ADR for uncertificated ADSs. The depositary will cancel that ADR and will send to the ADS holder a statement confirming that the ADS holder is the registered holder of uncertificated ADSs. Upon receipt by the depositary of a proper instruction from a registered holder of uncertificated ADSs requesting the exchange of uncertificated ADSs for certificated ADSs, the depositary will execute and deliver to the ADS holder an ADR evidencing those ADSs.

Voting Rights

How do You Vote?

ADS holders may instruct the depositary how to vote the number of deposited shares their ADSs represent. If we request the depositary to solicit your voting instructions (and we are not required to do so), the depositary will notify you of a shareholders' meeting and send or make voting materials available to you. Those materials will describe the matters to be voted on and explain how ADS holders may instruct the depositary how to vote. For instructions to be valid, they must reach the depositary by a date set by the depositary. The depositary will try, as far as practical, subject to the laws of the Kingdom of Denmark and the provisions of our articles of association or similar documents, to vote or to have its agents vote the shares or other deposited securities as instructed by ADS holders. If we do not request the depositary to solicit your voting instructions, you can still send voting instructions, and, in that case, the depositary may try to vote as you instruct, but it is not required to do so.

Except by instructing the depositary as described above, you won't be able to exercise voting rights unless you surrender your ADSs and withdraw the shares. However, you may not know about the meeting enough in advance to withdraw the shares. In any event, the depositary will not exercise any discretion in voting deposited securities and it will only vote or attempt to vote as instructed.

We cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your shares. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. *This means that you may not be able to exercise voting rights and there may be nothing you can do if your shares are not voted as you requested.*

In order to give you a reasonable opportunity to instruct the depositary as to the exercise of voting rights relating to Deposited Securities, if we request the Depositary to act, we will provide the depositary with the proposed meeting date and details of the matters proposed to be voted on at least 30 days before the meeting date and the depositary will send voting materials to you approximately 21 days before the meeting date.

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Fees and Expenses

<i>Persons depositing or withdrawing shares or ADS holders must pay:</i>	<i>For:</i>
\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property
	Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
\$.05 (or less) per ADS	Any cash distribution to ADS holders
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Distribution of securities distributed to holders of deposited securities (including rights) that are distributed by the depository to ADS holders
\$.05 (or less) per ADS per calendar year	Depository services
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the depository or its agent when you deposit or withdraw shares
Expenses of the depository	Cable (including SWIFT) and facsimile transmissions (when expressly provided in the deposit agreement)
	Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depository or the custodian has to pay on any ADSs or shares underlying ADSs, such as stock transfer taxes, stamp duty or withholding taxes	As necessary
Any charges incurred by the depository or its agents for servicing the deposited securities	As necessary

The depository collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depository collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depository may collect its annual fee for depository services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depository may collect any of its fees by deduction from any cash distribution payable (or by selling a portion of securities or other property distributable) to ADS holders that are obligated to pay those fees. The depository may generally refuse to provide fee-attracting services until its fees for those services are paid.

From time to time, the depository may make payments to us to reimburse us for costs and expenses generally arising out of establishment and maintenance of the ADS program, waive fees and expenses for services provided to us by the depository or share revenue from the fees collected from ADS holders. In performing its duties under the deposit agreement, the depository may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depository and that may earn or share fees, spreads or commissions.

The depository may convert currency itself or through any of its affiliates, or the custodian or we may convert currency and pay U.S. dollars to the depository. Where the depository converts currency itself or through any of its affiliates, the depository acts as principal for its own account and not as agent, advisor, broker or fiduciary

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on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the deposit agreement and the rate that the depository or its affiliate receives when buying or selling foreign currency for its own account. The depository makes no representation that the exchange rate used or obtained by it or its affiliate in any currency conversion under the deposit agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to ADS holders, subject to the depository's obligation to act without negligence or bad faith. The methodology used to determine exchange rates used in currency conversions made by the depository is available upon request. Where the custodian converts currency, the custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to ADS holders, and the depository makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the depository may receive dividends or other distributions from the us in U.S. dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by us and, in such cases, the depository will not engage in, or be responsible for, any foreign currency transactions and neither it nor we make any representation that the rate obtained or determined by us is the most favorable rate and neither it nor we will be liable for any direct or indirect losses associated with the rate.

Payment of Taxes

You will be responsible for any taxes or other governmental charges payable on your ADSs or on the deposited securities represented by any of your ADSs. The depository may refuse to register any transfer of your ADSs or allow you to withdraw the deposited securities represented by your ADSs until those taxes or other charges are paid. It may apply payments owed to you or sell deposited securities represented by your ADSs to pay any taxes owed and you will remain liable for any deficiency. If the depository sells deposited securities, it will, if appropriate, reduce the number of ADSs to reflect the sale and pay to ADS holders any proceeds, or send to ADS holders any property, remaining after it has paid the taxes.

Tender and Exchange Offers; Redemption, Replacement or Cancellation of Deposited Securities

The depository will not tender deposited securities in any voluntary tender or exchange offer unless instructed to do so by an ADS holder surrendering ADSs and subject to any conditions or procedures the depository may establish.

If deposited securities are redeemed for cash in a transaction that is mandatory for the depository as a holder of deposited securities, the depository will call for surrender of a corresponding number of ADSs and distribute the net redemption money to the holders of called ADSs upon surrender of those ADSs.

If there is any change in the deposited securities such as a sub-division, combination or other reclassification, or any merger, consolidation, recapitalization or reorganization affecting the issuer of deposited securities in which the depository receives new securities in exchange for or in lieu of the old deposited securities, the depository will hold those replacement securities as deposited securities under the deposit agreement. However, if the depository decides it would not be lawful and practical to hold the replacement securities because those securities could not be distributed to ADS holders or for any other reason, the depository may instead sell the replacement securities and distribute the net proceeds upon surrender of the ADSs.

If there is a replacement of the deposited securities and the depository will continue to hold the replacement securities, the depository may distribute new ADSs representing the new deposited securities or ask you to surrender your outstanding ADRs in exchange for new ADRs identifying the new deposited securities.

If there are no deposited securities underlying ADSs, including if the deposited securities are cancelled, or if the deposited securities underlying ADSs have become apparently worthless, the depository may call for surrender of those ADSs or cancel those ADSs upon notice to the ADS holders.

Amendment and Termination

How May the Deposit Agreement be Amended?

We may agree with the depositary to amend the deposit agreement and the ADRs without your consent for any reason. If an amendment adds or increases fees or charges, except for taxes and other governmental charges or expenses of the depositary for registration fees, facsimile costs, delivery charges or similar items, or prejudices a substantial right of ADS holders, it will not become effective for outstanding ADSs until 30 days after the depositary notifies ADS holders of the amendment. *At the time an amendment becomes effective, you are considered, by continuing to hold your ADSs, to agree to the amendment and to be bound by the ADRs and the deposit agreement as amended.*

How May the Deposit Agreement be Terminated?

The depositary will initiate termination of the deposit agreement if we instruct it to do so. The depositary may initiate termination of the deposit agreement if

- 60 days have passed since the depositary told us it wants to resign but a successor depositary has not been appointed and accepted its appointment;
- we delist the ADSs from an exchange in the United States on which they were listed and do not list the ADSs on another exchange in the United States or make arrangements for trading of ADSs on the U.S. over-the-counter market;
- we delist our shares from an exchange outside the United States on which they were listed and do not list the shares on another exchange outside the United States;
- the depositary has reason to believe the ADSs have become, or will become, ineligible for registration on Form F-6 under the Securities Act;
- we appear to be insolvent or enter insolvency proceedings;
- all or substantially all the value of the deposited securities has been distributed either in cash or in the form of securities;
- there are no deposited securities underlying the ADSs or the underlying deposited securities have become apparently worthless; or
- there has been a replacement of deposited securities.

If the deposit agreement will terminate, the depositary will notify ADS holders at least 90 days before the termination date. At any time after the termination date, the depositary may sell the deposited securities. After that, the depositary will hold the money it received on the sale, as well as any other cash it is holding under the deposit agreement, unsegregated and without liability for interest, for the pro rata benefit of the ADS holders that have not surrendered their ADSs. Normally, the depositary will sell as soon as practicable after the termination date.

After the termination date and before the depositary sells, ADS holders can still surrender their ADSs and receive delivery of deposited securities, except that the depositary may refuse to accept a surrender for the purpose of withdrawing deposited securities or reverse previously accepted surrenders of that kind that have not settled if it would interfere with the selling process. The depositary may refuse to accept a surrender for the purpose of withdrawing sale proceeds until all the deposited securities have been sold. The depositary will

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continue to collect distributions on deposited securities, but, after the termination date, the depository is not required to register any transfer of ADSs or distribute any dividends or other distributions on deposited securities to the ADSs holder (until they surrender their ADSs) or give any notices or perform any other duties under the deposit agreement except as described in this paragraph.

Limitations on Obligations and Liability

Limits on our Obligations and the Obligations of the Depository; Limits on Liability to Holders of ADSs

The deposit agreement expressly limits our obligations and the obligations of the depository. It also limits our liability and the liability of the depository. We and the depository:

- are only obligated to take the actions specifically set forth in the deposit agreement without negligence or bad faith, and the depository will not be a fiduciary or have any fiduciary duty to holders of ADSs;
- are not liable if we are or it is prevented or delayed by law or by events or circumstances beyond our or its ability to prevent or counteract with reasonable care or effort from performing our or its obligations under the deposit agreement;
- are not liable if we or it exercises discretion permitted under the deposit agreement;
- are not liable for the inability of any holder of ADSs to benefit from any distribution on deposited securities that is not made available to holders of ADSs under the terms of the deposit agreement, or for any special, consequential or punitive damages for any breach of the terms of the deposit agreement;
- have no obligation to become involved in a lawsuit or other proceeding related to the ADSs or the deposit agreement on your behalf or on behalf of any other person;
- may rely upon any documents we believe or it believes in good faith to be genuine and to have been signed or presented by the proper person;
- are not liable for the acts or omissions of any securities depository, clearing agency or settlement system; and
- the depository has no duty to make any determination or provide any information as to our tax status, or any liability for any tax consequences that may be incurred by ADS holders as a result of owning or holding ADSs or be liable for the inability or failure of an ADS holder to obtain the benefit of a foreign tax credit, reduced rate of withholding or refund of amounts withheld in respect of tax or any other tax benefit.

In the deposit agreement, we and the depository agree to indemnify each other under certain circumstances.

Requirements for Depository Actions

Before the depository will deliver or register a transfer of ADSs, make a distribution on ADSs, or permit withdrawal of shares, the depository may require:

- payment of stock transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any shares or other deposited securities;

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- satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and
- compliance with regulations it may establish, from time to time, consistent with the deposit agreement, including presentation of transfer documents.

The depository may refuse to deliver ADSs or register transfers of ADSs when the transfer books of the depository or our transfer books are closed or at any time if the depository or we think it advisable to do so.

Your Right to Receive the Shares Underlying your ADSs

ADS holders have the right to cancel their ADSs and withdraw the underlying shares at any time except:

- when temporary delays arise because: (i) the depository has closed its transfer books or we have closed our transfer books; (ii) the transfer of shares is blocked to permit voting at a shareholders' meeting; or (iii) we are paying a dividend on our shares;
- when you owe money to pay fees, taxes and similar charges; or
- when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADSs or to the withdrawal of shares or other deposited securities.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

Direct Registration System

In the deposit agreement, all parties to the deposit agreement acknowledge that the Direct Registration System, also referred to as DRS, and Profile Modification System, also referred to as Profile, will apply to the ADSs. DRS is a system administered by DTC that facilitates interchange between registered holding of uncertificated ADSs and holding of security entitlements in ADSs through DTC and a DTC participant. Profile is a feature of DRS that allows a DTC participant, claiming to act on behalf of a registered holder of uncertificated ADSs, to direct the depository to register a transfer of those ADSs to DTC or its nominee and to deliver those ADSs to the DTC account of that DTC participant without receipt by the depository of prior authorization from the ADS holder to register that transfer.

In connection with and in accordance with the arrangements and procedures relating to DRS/Profile, the parties to the deposit agreement understand that the depository will not determine whether the DTC participant that is claiming to be acting on behalf of an ADS holder in requesting registration of transfer and delivery as described in the paragraph above has the actual authority to act on behalf of the ADS holder (notwithstanding any requirements under the Uniform Commercial Code). In the deposit agreement, the parties agree that the depository's reliance on and compliance with instructions received by the depository through the DRS/Profile system and in accordance with the deposit agreement will not constitute negligence or bad faith on the part of the depository.

Shareholder Communications; Inspection of Register of Holders of ADSs

The depository will make available for your inspection at its office all communications that it receives from us as a holder of deposited securities that we make generally available to holders of deposited securities. The depository will send you copies of those communications or otherwise make those communications available to you if we ask it to which we may choose not to. You have a right to inspect the register of holders of ADSs, but not for the purpose of contacting those holders about a matter unrelated to our business or the ADSs.

Jury Trial Waiver

The deposit agreement provides that, to the extent permitted by law, ADS holders waive the right to a jury trial of any claim they may have against us or the depositary arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws. If we or the depositary opposed a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable in the facts and circumstances of that case in accordance with applicable case law.

You will not, by agreeing to the terms of the deposit agreement, be deemed to have waived our or the depositary's compliance with U.S. federal securities laws or the rules and regulations promulgated thereunder.

ORDINARY SHARES AND ADSs ELIGIBLE FOR FUTURE SALE

Prior to the global offering, although our ordinary shares are admitted to trading on Nasdaq Copenhagen, there has been no public market on a U.S. national securities exchange for our ordinary shares or ADSs and we cannot assure you that a significant public market in the United States for the ordinary shares or ADSs will be established or sustained after the global offering.

Future sales of the ADSs in the public market immediately after the global offering, and the availability of ADSs for future sale, could adversely affect the market price of the ADSs prevailing from time to time. Some of our ordinary shares and ADSs are subject to contractual and legal restrictions on resale as described below. There may be sales of substantial amounts of the ADSs or ordinary shares in the public market after such restrictions lapse, which could adversely affect prevailing market prices of the ADSs and could impair our future ability to raise equity capital.

Upon the closing of the global offering, 34,661,075 ordinary shares (including ordinary shares in the form of ADSs) will be outstanding, based on our ordinary shares outstanding as of June 30, 2020. The ordinary shares and ADSs sold in the global offering will be freely tradable without restriction or further registration under the Securities Act, except for any ordinary shares or ADSs purchased by our “affiliates,” as that term is defined in Rule 144 under the Securities Act, sales of which would be subject to Rule 144 resale restrictions described below, other than the holding period requirement.

The ordinary shares held by existing shareholders are “restricted securities,” as that term is defined in Rule 144 under the Securities Act. Restricted securities may be sold in the United States on the Nasdaq Global Select Market only if registered or if their resale qualifies for exemption from registration described below under Rule 144 or Rule 701 promulgated under the Securities Act. We expect 12,809,166 of our ordinary shares outstanding after the global offering will be subject to the contractual 90-day lock-up period described below.

Rule 144

Rule 144 provides an exemption from the registration requirements of the Securities Act for restricted securities and securities held by certain affiliates of an issuer being sold in the United States, to U.S. persons or through U.S. securities markets. In general, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, a person (or persons whose securities are required to be aggregated) who is not deemed to have been one of our “affiliates” for purposes of Rule 144 at any time during the three months preceding a sale, and who have beneficially owned restricted securities for at least six months, and any affiliate of the company who owns either restricted or unrestricted securities, are entitled to sell their securities without registration with the SEC under an exemption from registration provided by Rule 144 under the Securities Act.

Non-Affiliates

Any person who is not deemed to have been one of our affiliates at the time of, or at any time during the three months preceding, a sale may sell an unlimited number of restricted securities under Rule 144 without complying with the manner of sale, volume limitation or notice provisions of Rule 144 if:

- the restricted securities have been held for at least six months, including the holding period of any prior owner other than one of our affiliates;
- we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale; and
- we are current in our Exchange Act reporting at the time of sale.

Any person who is not deemed to have been an affiliate of ours at the time of, or at any time during the three months preceding, a sale and has held the restricted securities for at least one year, including the holding

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period of any prior owner other than one of our affiliates, will be entitled to sell an unlimited number of restricted securities without complying with any of the requirements of Rule 144, including the length of time we have been subject to Exchange Act periodic reporting or whether we are current in our Exchange Act reporting.

Affiliates

Persons seeking to sell restricted securities who are our affiliates at the time of, or any time during the three months preceding, a sale, would be subject to the restrictions described above.

Once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, our affiliates who have beneficially owned the securities proposed to be sold for at least six months and comply with the manner of sale and notice provisions of Rule 144 would be entitled to sell within any three-month period only that number of securities that does not exceed the greater of either of the following:

- 1% of the number of ordinary shares then outstanding, which will equal approximately 346,611 shares immediately after the consummation of the global offering based on the number of ordinary shares outstanding as of June 30, 2020; or
- the average weekly trading volume of our ordinary shares in the form of ADSs on the Nasdaq Global Select Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Such sales under Rule 144 by our affiliates or persons selling ADSs on behalf of our affiliates are also subject to certain manner of sale provisions, notice requirements and to the availability of current public information about us.

Additionally, persons who are our affiliates at the time of, or any time during the three months preceding, a sale may sell unrestricted securities under the requirements of Rule 144 described above, without regard to the six-month holding period of Rule 144, which does not apply to sales of unrestricted securities.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and in the section of this prospectus titled “Underwriting” and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Regulation S

Regulation S provides generally that sales made in offshore transactions are not subject to the registration or prospectus delivery requirements of the Securities Act.

Lock-up Agreements

Each of our executive officers, directors and certain of our existing shareholders have agreed, subject to limited exceptions, not to offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise dispose of, directly or indirectly, or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the ADSs, ordinary shares or such securities convertible or exercisable into ADS or ordinary shares for a period of 90 days after the date of this prospectus, or publicly disclose the intention to do any of the foregoing, without the prior written consent of BofA Securities Inc. and Cowen and Company, LLC. See “Underwriting.”

TAXATION

The following is a general summary of certain Danish and United States federal income tax consequences relevant to the decision to acquire ordinary shares or ADSs in this global offering. The discussion is not intended to be, nor should it be construed as, legal or tax advice to any particular prospective purchaser. The discussion is based on laws and relevant interpretations thereof in effect as of the date of this prospectus, all of which are subject to change or different interpretations, possibly with retroactive effect. The discussion does not address U.S. state or local tax laws, or tax laws of jurisdictions other than the Kingdom of Denmark and the United States. You should consult your tax advisors with respect to the consequences of the acquisition, ownership and disposition of the ordinary shares or ADSs.

Material U.S. Federal Income Tax Consequences for U.S. Holders

The following discussion describes the material U.S. federal income tax consequences relating to the acquisition, ownership and disposition of the ordinary shares or ADSs by U.S. Holders (as defined below). This discussion applies to U.S. Holders that purchase ordinary shares or ADSs pursuant to the global offering and hold such ordinary shares or ADSs as capital assets (generally, property held for investment) within the meaning of Section 1221 of the U.S. Internal Revenue Code of 1986, as amended, or the Code. This discussion is based on the Code, U.S. Treasury regulations promulgated thereunder and administrative and judicial interpretations thereof, all as in effect on the date hereof and all of which are subject to change, possibly with retroactive effect. This discussion does not address all of the U.S. federal income tax consequences that may be relevant to specific U.S. Holders in light of their particular circumstances or to U.S. Holders subject to special treatment under U.S. federal income tax law (such as certain financial institutions, insurance companies, broker-dealers and traders in securities or other persons that generally mark their securities to market for U.S. federal income tax purposes, tax-exempt entities, retirement plans, regulated investment companies, real estate investment trusts, certain former citizens or residents of the United States, persons who hold ordinary shares or ADSs as part of a “straddle,” “hedge,” “conversion transaction,” “synthetic security” or other integrated investment, persons acquiring ordinary shares or ADSs in connection with a trade or business conducted outside of the United States, including a permanent establishment or a fixed base in Denmark, persons who received their ordinary shares or ADSs as compensatory payments, U.S. Holders that have a “functional currency” other than the U.S. dollar, persons that own directly, indirectly or through attribution 10% or more of our shares by vote or value, persons who are subject to special tax accounting under Section 451(b) of the Code, corporations that accumulate earnings to avoid U.S. federal income tax, partnerships and other pass-through entities or arrangements that are classified as partnerships for U.S. federal income tax purposes, and investors in such pass-through entities or arrangements). This discussion does not address any U.S. state or local or non-U.S. tax consequences or any U.S. federal estate, gift or alternative minimum tax consequences or the Medicare tax on net investment income.

As used in this discussion, the term “U.S. Holder” means a beneficial owner of ordinary shares or ADSs that is, for U.S. federal income tax purposes, (1) an individual who is a citizen or resident of the United States, (2) a corporation (or entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia, (3) an estate the income of which is subject to U.S. federal income tax regardless of its source or (4) a trust (x) with respect to which a court within the United States is able to exercise primary supervision over its administration and one or more United States persons (as defined in the Code) have the authority to control all of its substantial decisions or (y) that has elected under applicable U.S. Treasury regulations to be treated as a domestic trust for U.S. federal income tax purposes.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds ordinary shares or ADSs, the U.S. federal income tax consequences relating to an investment in the ordinary shares or ADSs will depend in part upon the status and activities of such entity or arrangement and the particular partner. Any such partnership or partner therein should consult its own tax advisor regarding the U.S. federal income tax consequences applicable to it and its partners of the purchase, ownership and disposition of ordinary shares or ADSs.

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Persons considering an investment in ordinary shares or ADSs should consult their own tax advisors as to the particular tax consequences applicable to them relating to the purchase, ownership and disposition of ordinary shares or ADSs, including the applicability of U.S. federal, state and local tax laws and non-U.S. tax laws.

Passive Foreign Investment Company Consequences

In general, a corporation organized outside the United States will be treated as a passive foreign investment company, or PFIC, for any taxable year in which either (1) at least 75% of its gross income is “passive income” or (2) on average at least 50% of its assets, determined on a quarterly basis, are assets that produce passive income or are held for the production of passive income. Passive income for this purpose generally includes, among other things, dividends, interest, royalties, rents, and gains from the sale or exchange of property that gives rise to passive income. Assets that produce or are held for the production of passive income generally include cash, even if held as working capital or raised in a public offering, marketable securities, and other assets that may produce passive income. Generally, in determining whether a non-U.S. corporation is a PFIC, a proportionate share of the income and assets of each corporation in which it owns, directly or indirectly, at least a 25% interest (by value) is taken into account.

Our status as a PFIC will depend on the nature and composition of our income and the nature, composition and value of our assets (which may be determined based on the fair market value of each asset, with the value of goodwill and going concern value being determined in large part by reference to the market value of our ordinary shares or ADSs, which may be volatile). Our status may also depend, in part, on how quickly we utilize the cash proceeds from the global offering and the concurrent private placement in our business. Based on our current estimates (and not final audited financials) of the composition of our income and valuation of our assets, including goodwill, we do not believe we were a PFIC for our taxable year ending June 30, 2020. There can be no assurance that the IRS will agree with our conclusion and that the IRS would not successfully challenge our position. The determination of whether we are a PFIC is a fact-intensive determination made on an annual basis and the applicable law is subject to varying interpretation. Furthermore, because there are uncertainties in the application of the relevant rules, it is possible that the IRS may challenge our classification of certain income and assets as non-passive or our valuation of our tangible and intangible assets, each of which may result in us being treated as a PFIC for our taxable year ending June 30, 2020 or us becoming a PFIC for the current taxable year or any future taxable years. Our PFIC status may change from year to year and we have not yet made any determination as to our expected PFIC status for the current year. Accordingly, there can be no assurance that we will not be considered a PFIC in the current year or for any future taxable year. Our U.S. counsel expresses no opinion with respect to our PFIC status for our taxable year ending June 30, 2020, and the current or any future taxable year.

If we are a PFIC in any taxable year during which a U.S. Holder owns ordinary shares or ADSs, the U.S. Holder could be liable for additional taxes and interest charges under the “PFIC excess distribution regime” upon (1) a distribution paid during a taxable year that is greater than 125% of the average annual distributions paid in the three preceding taxable years, or, if shorter, the U.S. Holder’s holding period for the ordinary shares or ADSs, and (2) any gain recognized on a sale, exchange or other disposition, including a pledge, of the ordinary shares or ADSs, whether or not we continue to be a PFIC. Under the PFIC excess distribution regime, the tax on such distribution or gain would be determined by allocating the distribution or gain ratably over the U.S. Holder’s holding period for ordinary shares or ADSs. The amount allocated to the current taxable year (i.e., the year in which the distribution occurs or the gain is recognized) and any year prior to the first taxable year in which we are a PFIC will be taxed as ordinary income earned in the current taxable year. The amount allocated to other taxable years will be taxed at the highest marginal rates in effect for individuals or corporations, as applicable, to ordinary income for each such taxable year, and an interest charge, generally applicable to underpayments of tax, will be added to the tax. In addition, any dividend distributions made to a U.S. Holder will not qualify for the lower rates of taxation applicable to qualified dividends discussed below under “Distributions.”

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If we are a PFIC for any year during which a U.S. Holder holds ordinary shares or ADSs, we generally will continue to be treated as a PFIC by that holder for all succeeding years during which the U.S. Holder holds the ordinary shares or ADSs, unless we cease to meet the requirements for PFIC status and the U.S. Holder makes a “deemed sale” election with respect to the ordinary shares or ADSs. If the election is made, the U.S. Holder will be deemed to sell the ordinary shares or ADSs it holds at their fair market value on the last day of the last taxable year in which we qualified as a PFIC, and any gain recognized from such deemed sale would be taxed under the PFIC excess distribution regime. After the deemed sale election, the U.S. Holder’s ordinary shares or ADSs would not be treated as shares of a PFIC unless we subsequently become a PFIC.

If we are a PFIC for any taxable year during which a U.S. Holder holds ordinary shares or ADSs and one of our non-U.S. corporate subsidiaries is also a PFIC (i.e., a lower-tier PFIC), such U.S. Holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC and would be taxed under the PFIC excess distribution regime on distributions by the lower-tier PFIC and on gain from the disposition of shares of the lower-tier PFIC even though such U.S. Holder would not receive the proceeds of those distributions or dispositions. Each U.S. Holder is advised to consult its tax advisors regarding the application of the PFIC rules to our non-U.S. subsidiaries.

Certain elections may alleviate some of the adverse consequences of PFIC status and would result in an alternative treatment of our ordinary shares or ADSs. If we are a PFIC, a U.S. Holder will not be subject to tax under the PFIC excess distribution regime on distributions or gain recognized on ordinary shares or ADSs if such U.S. Holder makes a valid “mark-to-market” election for the ordinary shares or ADSs. The mark-to-market election is available only if we are a PFIC and our ordinary shares or ADSs are “regularly traded” on a “qualified exchange.” The ordinary shares or ADSs (respectively) will be treated as “regularly traded” in any calendar year in which more than a de minimis quantity of the ordinary shares or ADSs (respectively) are traded on a qualified exchange on at least 15 days during each calendar quarter (subject to the rule that trades that have as one of their principal purposes the meeting of the trading requirement are disregarded). It should be noted that it is intended that only the ADSs and not our ordinary shares will be listed on the Nasdaq Global Select Market. The Nasdaq Global Select Market is a qualified exchange for this purpose and, consequently, if the ADSs are regularly traded, the mark-to-market election will be available to a U.S. Holder. Consequently, our ordinary shares may not be marketable if Nasdaq Copenhagen (where our ordinary shares are currently listed) does not meet the applicable requirements. U.S. holders should consult their tax advisors regarding the availability of the mark-to-market election for ordinary shares that are not represented by ADSs.

If a mark-to-market election is in effect, a U.S. Holder generally would take into account, as ordinary income for each taxable year of the U.S. holder, the excess of the fair market value of ordinary shares or ADSs held at the end of such taxable year over the adjusted tax basis of such ordinary shares or ADSs. The U.S. Holder would also take into account, as an ordinary loss each year, the excess of the adjusted tax basis of such ordinary shares or ADSs over their fair market value at the end of the taxable year, but only to the extent of the excess of amounts previously included in income over ordinary losses deducted as a result of the mark-to-market election. The U.S. Holder’s tax basis in ordinary shares or ADSs would be adjusted to reflect any income or loss recognized as a result of the mark-to-market election. Any gain from a sale, exchange or other disposition of ordinary shares or ADSs in any taxable year in which we are a PFIC would be treated as ordinary income and any loss from such sale, exchange or other disposition would be treated first as ordinary loss (to the extent of any net mark-to-market gains previously included in income) and thereafter as capital loss.

A mark-to-market election will not apply to ordinary shares or ADSs for any taxable year during which we are not a PFIC, but will remain in effect with respect to any subsequent taxable year in which we become a PFIC. Such election will not apply to any non-U.S. subsidiaries that we may organize or acquire in the future. Accordingly, a U.S. Holder may continue to be subject to tax under the PFIC excess distribution regime with respect to any lower-tier PFICs that we may organize or acquire in the future notwithstanding the U.S. Holder’s mark-to-market election for the ordinary shares or ADSs.

The tax consequences that would apply if we are a PFIC would also be different from those described above if a U.S. Holder were able to make a valid qualified electing fund, or QEF, election. At this time, we do not expect to provide U.S. Holders with the information necessary for a U.S. Holder to make a QEF election. Prospective U.S. Holders should assume that a QEF election will not be available. U.S. Holders should consult their tax advisors to determine whether any of the other elections described above would be available and if so, what the consequences of the alternative treatments would be in their particular circumstances.

Each U.S. person that is an investor in a PFIC is generally required to file an annual information return on IRS Form 8621 containing such information as the U.S. Treasury Department may require. The failure to file IRS Form 8621 could result in the imposition of penalties and the extension of the statute of limitations with respect to U.S. federal income tax.

The U.S. federal income tax rules relating to PFICs are very complex. Prospective U.S. Holders are strongly urged to consult their own tax advisors with respect to the impact of PFIC status on the purchase, ownership and disposition of ordinary shares or ADSs, the consequences to them of an investment in a PFIC, any elections available with respect to the ordinary shares or ADSs and the IRS information reporting obligations with respect to the purchase, ownership and disposition of ordinary shares or ADSs of a PFIC.

Distributions

As described in the section titled “Dividend Policy,” we do not anticipate declaring or paying dividends to holders of the ordinary shares or ADSs in the foreseeable future. However, if we make a distribution contrary to this expectation, subject to the discussion above under “—Passive foreign investment company consequences,” a U.S. Holder that receives a distribution with respect to ordinary shares or ADSs generally will be required to include the gross amount (including any amounts withheld in respect of foreign taxes) of such distribution in gross income as a dividend when actually or constructively received to the extent of the U.S. Holder’s pro rata share of our current and/or accumulated earnings and profits (as determined under U.S. federal income tax principles). To the extent a distribution received by a U.S. Holder is not a dividend because it exceeds the U.S. Holder’s pro rata share of our current and accumulated earnings and profits, it will be treated first as a tax-free return of capital and reduce (but not below zero) the adjusted tax basis of the U.S. Holder’s ordinary shares or ADSs. To the extent the distribution exceeds the adjusted tax basis of the U.S. Holder’s ordinary shares or ADSs, the remainder will be taxed as capital gain. Because we may not calculate our earnings and profits in accordance with U.S. federal income tax principles, U.S. Holders can expect all distributions to be reported to them as dividends.

Distributions on ordinary shares or ADSs that are treated as dividends generally will not be eligible for the “dividends received” deduction generally allowed to corporate shareholders with respect to dividends received from U.S. corporations. Dividends paid by a “qualified foreign corporation” are eligible for taxation to non-corporate U.S. Holders at a reduced capital gains rate rather than the marginal tax rates generally applicable to ordinary income provided that certain requirements are met. A non-United States corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (a) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information provision, or (b) with respect to any dividend it pays on shares that are readily tradable on an established securities market in the United States. We have applied to list only the ADSs and not our ordinary shares on the Nasdaq Global Select Market, which is an established securities market in the United States, and we expect the ADSs to be readily tradable on the Nasdaq Global Select Market. There can be no assurance that the ADSs will be considered to be readily tradable on an established securities market in the United States in later years. However, the Company, which is incorporated under the laws of the Kingdom of Denmark, believes that it qualifies as a resident of the Kingdom of Denmark for purposes of, and is eligible for the benefits of, the Convention between the

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Government of the United States of America and the Government of the Kingdom of Denmark for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, signed on August 19, 1999, as amended and currently in force, or the U.S.-Denmark Tax Treaty, although there can be no assurance in this regard. Further, the IRS has determined that the U.S.-Denmark Tax Treaty is satisfactory for purposes of the qualified dividend rules and that it includes an exchange-of-information program. Therefore, subject to the discussion under “—Passive foreign investment company consequences” above and provided we are not a PFIC for the taxable year in which the dividend is paid or the preceding taxable year, dividends paid on the ADSs and the ordinary shares will generally be “qualified dividend income” in the hands of individual U.S. holders, provided that a holding period requirement (more than 60 days of ownership, without protection from the risk of loss, during the 121-day period beginning 60 days before the ex-dividend date) and certain other requirements are met. Each U.S. Holder is advised to consult its tax advisors regarding the availability of the reduced tax rate on dividends with regard to its particular circumstances.

Distributions on ordinary shares or ADSs that are treated as dividends generally will constitute income from sources outside the United States for foreign tax credit purposes and generally will constitute passive category income. Subject to certain complex conditions and limitations, Danish taxes withheld on any distributions on ordinary shares or ADSs may be eligible as a credit or deduction against a U.S. Holder’s federal income tax liability. The rules relating to the determination of the U.S. foreign tax credit are complex, and U.S. Holders should consult their tax advisors regarding the availability of a foreign tax credit in their particular circumstances and the possibility of claiming an itemized deduction (in lieu of the foreign tax credit) for any foreign taxes paid or withheld. In addition, the creditability of foreign taxes could be affected by actions taken by intermediaries in the chain of ownership between the holders of ADSs and our company if, as a result of such actions, the holders of ADSs are not properly treated as beneficial owners of the underlying ordinary shares. Each U.S. Holder should consult its own tax advisors regarding the foreign tax credit rules.

In general, the amount of a distribution paid to a U.S. Holder in a foreign currency will be the U.S. dollar value of the foreign currency calculated by reference to the spot exchange rate on the day the depository receives the distribution, in the case of the ADSs, or on the day the distribution is received by the U.S. Holder, in the case of ordinary shares, regardless of whether the foreign currency is converted into U.S. dollars at that time. Any foreign currency gain or loss a U.S. Holder realizes on a subsequent conversion of foreign currency into U.S. dollars will be U.S. source ordinary income or loss. If dividends received in a foreign currency are converted into U.S. dollars on the day they are received, a U.S. Holder generally will not be required to recognize foreign currency gain or loss in respect of the dividend.

Sale, Exchange or Other Disposition of Ordinary Shares or ADSs

Subject to the discussion above under “—Passive foreign investment company consequences,” a U.S. Holder generally will recognize capital gain or loss for U.S. federal income tax purposes upon the sale, exchange or other disposition of ordinary shares or ADSs in an amount equal to the difference, if any, between the U.S. dollar value of the amount realized (i.e., the amount of cash plus the fair market value of any property received) on the sale, exchange or other disposition and such U.S. Holder’s adjusted tax basis in the ordinary shares or ADSs. A U.S. Holder’s adjusted tax basis in its ordinary shares or ADSs generally will be equal to the cost of such ordinary shares or ADSs. Such capital gain or loss generally will be long-term capital gain taxable at a reduced rate for non-corporate U.S. Holders or long-term capital loss if, on the date of sale, exchange or other disposition, the ordinary shares or ADSs were held by the U.S. Holder for more than one year. Any capital gain of a non-corporate U.S. Holder that is not long-term capital gain is taxed at ordinary income rates. The deductibility of capital losses is subject to limitations. Any gain or loss recognized from the sale or other disposition of ordinary shares or ADSs will generally be gain or loss from sources within the United States for U.S. foreign tax credit purposes.

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For a cash basis taxpayer, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the settlement date of the purchase or sale. In that case, no foreign currency exchange gain or loss will result from currency fluctuations between the trade date and the settlement date of such a purchase or sale.

An accrual basis taxpayer, however, may elect the same treatment required of cash basis taxpayers with respect to purchases and sales of ordinary shares or ADSs that are traded on an established securities market, provided the election is applied consistently from year to year. Such election may not be changed without the consent of the IRS. For an accrual basis taxpayer who does not make such election, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the trade date of the purchase or sale. Such an accrual basis taxpayer may recognize exchange gain or loss based on currency fluctuations between the trade date and the settlement date. Any foreign currency gain or loss a U.S. Holder realizes will be U.S. source ordinary income or loss.

Information Reporting and Backup Withholding

U.S. Holders may be required to file certain U.S. information reporting returns with the IRS with respect to an investment in ordinary shares or ADSs, including, among others, IRS Form 8938 (Statement of Specified Foreign Financial Assets). As described above under “—Passive foreign investment company consequences,” each U.S. Holder who is a shareholder of a PFIC must file an annual report containing certain information. U.S. Holders paying more than US\$100,000 for ordinary shares or ADSs may be required to file IRS Form 926 (Return by a U.S. Transferor of Property to a Foreign Corporation) reporting this payment. Substantial penalties may be imposed upon a U.S. Holder that fails to comply with the required information reporting. U.S. Holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of ordinary shares or ADSs.

Dividends on and proceeds from the sale or other disposition of ordinary shares or ADSs may be reported to the IRS unless the U.S. Holder establishes an adequate basis for exemption. In addition, U.S. holders may be subject to backup withholding on such payments, unless the U.S. Holder provides a taxpayer identification number and a duly executed IRS Form W-9 or otherwise establishes an exemption. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules generally will be allowed as a refund or a credit against a U.S. Holder’s U.S. federal income tax liability if the required information is furnished by the U.S. Holder on a timely basis to the IRS.

U.S. Holders should consult their own tax advisors regarding the backup withholding tax and information reporting rules.

EACH PROSPECTIVE INVESTOR IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF AN INVESTMENT IN ORDINARY SHARES OR ADSS IN LIGHT OF THE INVESTOR’S OWN CIRCUMSTANCES.

Material Danish Income Tax Consequences

The following is a summary of material Danish tax considerations relating to the ownership and disposition of ordinary shares or ADSs. The summary is for general information purposes only and does not constitute exhaustive tax or legal advice.

It is noted specifically that the summary does not address all possible Danish tax consequences relating to the ownership and disposition of ordinary shares or ADSs. The summary does accordingly not apply to investors to whom special tax rules apply, and, therefore, may not be relevant, for example, to investors subject to the Danish Tax on Pension Yields Act (i.e., pension savings), professional investors, certain institutional investors, insurance companies, pension companies, banks, stockbrokers and investors with tax liability on return on pension investments. The summary does further not apply to non-Danish tax resident investors that carry on business activities in Denmark through a permanent establishment to which the ordinary shares or ADSs are allocated.

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In the context of the following section, “companies” mean entities that are treated as separate taxable entities under domestic tax laws of their jurisdiction of incorporation.

The summary is based solely on the tax laws of Denmark in effect on the date of this prospectus. Danish tax laws may be subject to change, potentially with retroactive effect.

Potential investors in the ordinary shares or ADSs are advised to consult their tax advisors regarding the applicable tax consequences of ownership and disposition of the ordinary shares or ADSs based on their particular circumstances.

Tax Treatment of ADSs under Danish Tax Law

It is currently not clear under Danish tax legislation or case law how ADSs are to be treated for Danish tax purposes.

This summary assumes that the ADS holder in respect of the ADSs is treated as the direct owner of the shares underlying the ADSs and, accordingly, as the shareholder for Danish domestic tax law purposes, and that the ADS holder is deemed the beneficial owner of any dividend distributed on the underlying shares for Danish domestic tax law purposes as well as under any applicable tax treaty. Based on this assumption, the ADSs listed in the U.S. should, for Danish tax purposes, be treated as listed shares since the company’s ordinary shares are admitted to trading on a regulated market.

Danish Tax Resident Individuals

Sale of Ordinary Shares or ADSs

Capital gains from the sale of shares realized by Danish tax resident individuals are taxed as share income at a rate of 27% on the first DKK 55,300 (approximately \$8,309 based on current exchange rates) (for cohabiting spouses, a total of DKK 110,600 (approximately \$16,618 based on current exchange rates)) and at a rate of 42% on share income exceeding DKK 55,300 (approximately \$8,309 based on current exchange rates) (for cohabiting spouses over DKK 110,600 approximately (\$16,618 based on current exchange rates)) (all 2020 amounts and thresholds). The threshold is subject to annual adjustments and include all share income (*i.e.*, all capital gains on shares and dividends derived by the individual or cohabiting spouses, respectively).

Gains and losses on the sale of shares are calculated as the difference between the purchase price and the sales price. The purchase price is generally determined using the average method as a proportionate part of the aggregate purchase price for all the shareholder’s shares in the company (*i.e.*, not the purchase price paid for each share).

Losses on the sale of listed shares can only be offset against other share income deriving from listed shares (*i.e.*, dividends and capital gains on the sale of listed shares) and subject to the Danish tax authorities having received certain information concerning the ownership of the shares in due time. Unused losses will automatically be offset against a cohabiting spouse’s share income deriving from listed shares and any additional losses can be carried forward and offset against future share income deriving from listed shares.

Dividends

Dividends paid to Danish tax resident individuals are included in the individual’s share income and taxed as such, as outlined above. All share income must be included when calculating whether the amounts mentioned above are exceeded. Dividends paid to Danish tax resident individuals are generally subject to withholding tax at the rate of 27%.

Non-Danish Tax Resident Individuals

Sale of Ordinary Shares or ADSs

Non-Danish tax resident individuals, including individuals tax resident in the United States, are normally not subject to Danish taxation on any gains realized on the sale of shares, irrespective of the ownership period, subject to certain anti-avoidance rules seeking to prevent that taxable dividend payments are converted to tax exempt capital gains (see below).

Dividends

Dividends paid to non-Danish tax resident individuals, including individuals tax resident in the United States, are generally subject to withholding tax at the rate of 27%. No additional Danish tax will be imposed.

In the event that the shareholder is tax resident in a state with which Denmark has entered into a tax treaty and is entitled to benefits under such tax treaty, the shareholder may seek a refund from the Danish Tax Agency of the tax withheld in excess of the applicable treaty rate (Danish tax treaties typically provide for a 15% tax rate). Denmark has entered into tax treaties with approximately 80 countries, including the United States and almost all EU member states. The treaty between Denmark and the United States generally provides for a 15% tax rate.

Similarly, Danish domestic tax law provides for a 15% tax rate, if the shareholder holds less than 10% of the nominal share capital in the company and is tax resident in a state that is obligated to exchange information with Denmark under a tax treaty or an international agreement, convention or other administrative agreement on assistance in tax matters. If the shareholder is tax resident outside the EU, it is an additional requirement for application of the 15% tax rate that the shareholder together with related shareholders holds less than 10% of the share capital of the company.

Any reduced tax rate according to an applicable tax treaty and/or Danish domestic tax law will not affect the withholding rate (27%). In order to receive a refund (from 27% to e.g., 15%), the shareholder must make a claim for such refund through certain certification procedures.

The Danish Tax Agency has published guidance on the documentation necessary for processing refund claims. The guidance is available in English from the Danish tax authorities' website, <https://skat.dk/skat.aspx?old=2244931&vId=0&lang=US>. The information on, or information that can be accessed through, such website is not part of and should not be incorporated by reference into this prospectus. We have included such website address as an inactive textual reference only.

The Danish Tax Ministry has in May 2020 announced that the Ministry will issue a proposal of a new structure, implying that the current refund system should be replaced by a specific withholding taxation depending on the respective shareholder.

Danish Tax Resident Companies

Sale of Ordinary Shares or ADSs

For the purpose of taxation of sales of shares made by corporate shareholders (and dividends received by corporate shareholders, see below), a distinction is made between Subsidiary Shares, Group Shares, Tax Exempt Portfolio Shares and Taxable Portfolio Shares (note that the ownership threshold described below is applied on the basis of the number of all shares issued by the company, and not on the basis of the number of the ordinary shares or ADSs issued):

“Subsidiary Shares,” which are generally defined as shares owned by a shareholder holding at least 10% of the share capital of the issuing company;

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“Group Shares,” which are generally defined as shares in a company in which the shareholder of the company and the issuing company are subject to Danish joint taxation or satisfy the requirements for international joint taxation under Danish law;

“Tax-Exempt Portfolio Shares,” which are generally defined as unlisted shares owned by a shareholder holding less than 10% of the share capital of the issuing company; and

“Taxable Portfolio Shares,” which are defined as shares that do not qualify as Subsidiary Shares, Group Shares or Tax-Exempt Portfolio Shares, e.g. shares admitted to trading on a regulated market (such as the ordinary shares and the ADSs) owned by a shareholder holding less than 10% of the nominal share capital of the issuing company.

Gains and losses on disposal of Subsidiary Shares, Group Shares and Tax-Exempt Portfolio Shares realized by Danish tax resident companies are generally not included in the taxable income of the shareholder, subject to certain anti-avoidance rules (see below).

Capital gains on listed Taxable Portfolio Shares are taxable at the general corporate tax rate of 22% and losses on such shares are generally deductible.

Gains and losses on listed Taxable Portfolio Shares are taxed under the mark-to-market principle irrespective of realization.

According to the mark to market principle, each year’s taxable gain or loss on Taxable Portfolio Shares is calculated as the difference between the market value of the shares at the beginning of the tax year and the market value of the shares at the end of the tax year. Thus, taxation will take place on an accrual basis even if no shares have been disposed of and no gains or losses have been realized.

Dividends

Dividends received on Subsidiary Shares and Group Shares are generally tax-exempt, subject to certain anti-avoidance rules (see below).

Dividends received on Taxable Portfolio Shares are taxable at the general corporate tax rate of 22% and tax is generally withheld similarly at 22%.

Non-Danish Tax Resident Companies

Sale of Ordinary Shares or ADSs

Non-Danish tax resident companies, including companies tax resident in the United States, are generally not taxed in Denmark on gains realized on the sale of shares, subject to certain anti-avoidance rules (see below).

Dividends

Dividends received on Subsidiary Shares are exempt from Danish withholding tax provided that taxation shall be waived or reduced under the Parent-Subsidiary Directive (2011/96/EU) or under an applicable tax treaty. Similarly, dividends received on Group Shares, which are not Subsidiary Shares, are exempt from Danish withholding tax if the shareholder is resident in the European Union or the EEA and provided that taxation shall be waived or reduced under the Parent-Subsidiary Directive (2011/96/EU) or under an applicable tax treaty had the shares been Subsidiary Shares.

In other cases, dividends will generally be subject to tax at a rate of 22%. However, the withholding rate is 27%, meaning that all foreign corporate shareholders receiving taxable dividends distributed from Danish companies will be able to ask for a refund of minimum 5% of the total dividend.

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Further, in the event that the shareholder is tax resident in a state with which Denmark has entered into a tax treaty and is entitled to the benefits under such tax treaty, the shareholder may seek a refund from the Danish Tax Agency of the tax withheld in excess of the applicable treaty rate (Danish tax treaties typically provide for a 15% tax rate). Denmark has entered into tax treaties with approximately 80 countries, including the United States and almost all EU member states. The treaty between Denmark and the United States generally provides for a 15% tax rate.

Similarly, Danish domestic tax law provides for an applicable 15% tax rate, if the shareholder holds less than 10% of the share capital in the company and is tax resident in a state that is obligated to exchange information with Denmark under a tax treaty or an international agreement, convention or other administrative agreement on assistance in tax matters. If the shareholder is tax resident outside the EU, it is an additional requirement for eligibility for the 15% tax rate that the shareholder together with related shareholders holds less than 10% of the nominal share capital of the company.

Any reduced tax rate according to an applicable tax treaty (and/or the 15% tax rate provided for under Danish domestic tax law) will not affect the withholding rate (27%). In order to receive a refund (from 27% to *e.g.*, 15%), the shareholder must make a claim for such refund through certain certification procedures.

The Danish Tax Agency has published guidance on the documentation necessary for processing refund claims. The guidance is available in English from the Danish tax authorities' website, <https://skat.dk/skat.aspx?oId=2244931&vId=0&lang=US>. The information on, or information that can be accessed through, such website is not part of and should not be incorporated by reference into this prospectus. We have included such website address as an inactive textual reference only.

The Danish Tax Ministry has in May 2020 announced that the Ministry will issue a proposal of a new structure, implying that the current refund system should be replaced by a specific withholding taxation depending on the respective shareholder.

Danish Anti-avoidance Rules

Payments may be subject to Danish withholding tax irrespective of the above, if the holder of ADSs or ordinary shares is not the beneficial owner of the shares and dividend (*e.g.* if the holder of ADSs or ordinary shares reassigns the payments to a person or entity not itself entitled to the above exemptions).

Further, Danish law has certain general anti-avoidance rules, which focus on substance over form. Under these rules the Danish tax authorities can set aside a setup, which constitutes a fictitious arrangement, which is carried out for the main purposes (or with one of the main purposes) of tax avoidance and resulting in no taxes being paid. This is the case where the relevant scheme presents a number of unusual features which suggest that it had not been entered into for commercial business reasons but to unduly obtain tax benefits. Subject to the conditions of the specific GAAR an investor might be denied the benefits of the Parent-Subsidiary Directive (2011/96/EU) or a tax treaty, and Danish withholding tax of 27% will in such cases be levied.

Finally, it should be noted that it is the shareholder who owns the share, *i.e.* the ordinary share or the ADS, at the time of the general meeting where the decision to distribute dividend is passed, who is subject to Danish taxation on the dividend, and thereby entitled to make a tax reclaim, if any.

UNDERWRITING

The global offering consists of a total of 7,616,146 ordinary shares, consisting of:

- an offering of a total of _____ ordinary shares in the form of ADSs in the United States and Canada, referred to as the U.S. offering; and
- a concurrent private placement of a total of _____ ordinary shares in Europe (including Denmark) referred to as the European private placement.

BofA Securities, Inc., Cowen and Company, LLC and Guggenheim Securities, LLC are acting as the global coordinators and joint book-running managers of the global offering. Danske Markets Inc. is acting as the lead manager of the global offering. In addition, BofA Securities, Inc., Cowen and Company, LLC, Guggenheim Securities, LLC (in each case, or their affiliates) and Danske Bank A/S are acting as joint book-running managers in the European private placement.

BofA Securities, Inc., Cowen and Company, LLC and Guggenheim Securities, LLC are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to (i) sell and the underwriters have agreed, severally and not jointly, to purchase from us the number of ordinary shares in the European private placement set forth opposite its name below and (ii) issue ordinary shares which the underwriters will subscribe for and, upon issuance, deposit with the depository, allowing the depository to deliver the number of ADSs which are subject to the U.S. offering and the underwriters have agreed, severally and not jointly, to subscribe for the ordinary shares equivalent to the number of ADSs set forth opposite its name below.

<u>Underwriter</u>	<u>Number of Ordinary Shares</u>	<u>Number of ADSs</u>
BofA Securities, Inc.		
Cowen and Company, LLC		
Guggenheim Securities, LLC		
Danske Markets Inc.		
Total	<u> </u>	<u> </u>

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to (i) purchase all of the ordinary shares in the European private placement and (ii) subscribe for all of the ordinary shares issued by us and underlying the ADSs in the U.S. offering, in each case, under the underwriting agreement if any of such ordinary shares are subscribed for in the U.S. offering. The total number of ADSs in the U.S. offering and ordinary shares in the European private placement (including ordinary shares purchased pursuant to the underwriters' option to purchase ordinary shares (which may be in the form of ADSs)) is subject to reallocation between these offerings to the extent permitted under applicable law and regulations. If an underwriter defaults, the underwriting agreement provides that the purchase and subscription commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the ordinary shares and ADSs, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the ordinary shares and ADSs (and ordinary shares underlying the ADSs), and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the

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right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. Sales of ordinary shares and ADSs made outside of the United States may be made by affiliates of the underwriters.

Commissions

The representatives have advised us that the underwriters propose initially to offer the ordinary shares and ADSs to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of DKK _____ per ordinary share and \$ _____ per ADS. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting commission and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional ordinary shares and ADSs.

	Per ADS		Per Ordinary Share		Total (in thousands)	
	Without Option to Purchase Additional ADSs	With Option to Purchase Additional ADSs	Without Option to Purchase Additional Ordinary Shares	With Option to Purchase Additional Ordinary Shares	Without Option to Purchase Additional ADSs and/or Ordinary Shares	With Option to Purchase Additional ADSs and/or Ordinary Shares
Public offering price	\$	\$	\$	\$	\$	\$
Underwriting commission	\$	\$	\$	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$	\$	\$	\$

The expenses of the offering, not including the underwriting commission, are estimated at \$2.6 million and are payable by us. We have agreed to reimburse the underwriters for certain expenses relating to clearance of this offering with the Financial Industry Regulatory Authority, Inc., or FINRA, up to \$35,000, as set forth in the underwriting agreement.

Option to Purchase Additional Ordinary Shares and ADSs

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to 1,142,421 additional ordinary shares (which may be in the form of ADSs) at the public offering price, less the underwriting commission. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional ordinary shares (which may be in the form of ADSs) proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers, directors and certain of our other existing security holders have agreed not to sell or transfer any ordinary shares or ADSs or any securities convertible into, exchangeable for or exercisable for with ordinary shares or ADSs (collectively referred to as "Lock-Up Securities"), for 90 days after the date of this prospectus without first obtaining the written consent of BofA Securities, Inc. and Cowen and Company, LLC. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any Lock-Up Securities,
- sell any option or contract to purchase any Lock-Up Securities,
- purchase any option or contract to sell any Lock-Up Securities,
- grant any option, right or warrant to purchase of any Lock-Up Securities,

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- otherwise dispose of or transfer any Lock-Up Securities,
- exercise any right with respect to the registration of any of the Lock-Up Securities, or file, cause to be filed or cause to be confidentially submitted any registration statement under the Securities Act of 1933, as amended, related to the Lock-Up Securities,
- enter into any swap or other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of any Lock-Up Securities whether any such swap or transaction is to be settled by delivery of Lock-Up Securities or other securities, in cash or otherwise, or
- publicly disclose the intention to do any of the foregoing.

These lock-up provisions apply to the Lock-Up Securities owned now or acquired later by the person executing the agreement, including such Lock-Up Securities for which the person executing the agreement has or later acquires the power of disposition.

Nasdaq Global Select Market Listing

The ADSs have been approved for listing on the Nasdaq Global Select Market, subject to notice of issuance, under the symbol “ORPH.”

Before this offering, neither our ordinary shares nor the ADSs have been listed for trading on an exchange in the United States. However, our ordinary shares are listed on Nasdaq Copenhagen under the symbol “ORPHA.” The initial offering price of the ordinary shares and ADSs will be determined through a book-building process of the ordinary shares and ADSs, in consideration of the closing price of our shares on Nasdaq Copenhagen and negotiations between us and the representatives and based in large part on the closing price of our shares on Nasdaq Copenhagen and determined in accordance with the principles for determining market price pursuant to Danish law. In addition to the closing price of our shares on Nasdaq Copenhagen, the factors to be considered in determining the initial offering price are:

- the price of our ordinary shares in connection with our existing listing on Nasdaq Copenhagen;
- the valuation multiples of publicly traded companies that the representatives believe to be comparable to us,
- our financial information,
- the history of, and the prospects for, us and the industry in which we compete,
- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues,
- the present state of our development, and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the ADSs may not develop. It is also possible that after the offering the ADSs will not trade in the public market at or above the initial offering price.

The underwriters do not expect to sell more than 5% of the ordinary shares (including ordinary shares in the form of ADSs) in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the ADSs and/or the ordinary shares, as applicable is completed, SEC rules and Danish law may limit underwriters and selling group members from bidding for and purchasing the ordinary shares and ADSs. However, the underwriters may engage in transactions that stabilize, maintain or otherwise effect the price of the ordinary shares and ADSs, such as bids or purchases to peg, fix or maintain that price for 30 days from the date of this prospectus (the “Stabilization Period”). Stabilization, if any, will not occur at a price higher than the public offering price. However, such stabilization may not necessarily occur during the Stabilization Period and may cease at any time. Any stabilization action must be conducted by the underwriters (or person(s) acting on their behalf) in accordance with applicable laws and rules.

In connection with the offering, the underwriters (or persons acting on their behalf) may over-allot ordinary shares and ADSs or effect transactions with a view to supporting the market price of the ordinary shares and ADSs during the stabilization period at a level higher than that which might otherwise prevail. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of ordinary shares and ADSs than they are required to purchase in the offering. “Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional ordinary shares or ADSs described above. The underwriters may close out any covered short position by either exercising their option to purchase additional ordinary shares or ADSs or purchasing ordinary shares or ADSs in the open market. In determining the source of ordinary shares or ADSs to close out the covered short position, the underwriters will consider, among other things, the price of ordinary shares and ADSs available for purchase in the open market as compared to the price at which they may purchase ordinary shares and ADSs through the option granted to them. “Naked” short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing ordinary shares or ADSs in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the ordinary shares and ADSs in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of the ordinary shares and ADSs made by the underwriters in the open market prior to the end of the Stabilization Period.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting commission received by it because the representatives have repurchased ordinary shares or ADSs sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters’ purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of the ordinary shares and ADSs or preventing or retarding a decline in the market price of the ordinary shares and ADSs.

As a result, the price of the ordinary shares and ADSs may be higher than the price that might otherwise exist in the open market.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the ordinary shares and ADSs. However, stabilization may not necessarily occur. Any stabilization action or over allotment must be conducted by the relevant underwriter (or persons acting on their behalf) in accordance with all applicable laws and rules and in any event in accordance with the principles and procedures set forth herein as well as in compliance with Regulation (EU) No 596/2014 on market abuse, including delegated Regulation (EU) No. 1052/2016 of 8 March 2016. Any stabilization or over allotment will be undertaken in the U.S. securities markets, including on the Nasdaq Global Select Market, in the over-the-counter market or otherwise, on the Nasdaq Copenhagen or at the offices of the relevant underwriter (or persons acting on their behalf).

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions. For example, Guggenheim Securities, LLC, an underwriter in this offering, acted as a placement agent and Danske Bank A/S, an underwriter in the European private placement, acted as a placement agent, lending shareholder and settlement agent in connection with our February 2020 directed issue and private placement and in connection therewith received customary fees and commissions. In addition, Danske Bank A/S and certain of its affiliates are also shareholders of the Company.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Notice to Prospective Investors in the European Economic Area and the United Kingdom

This prospectus has been prepared on the basis that any offer of ordinary shares or ADSs in any member state of the European Economic Area or the United Kingdom (each a “Relevant State”) will be made pursuant to an exemption under the Prospectus Regulation from the requirement to publish a prospectus for offers of ordinary shares or ADSs. Accordingly any person making or intending to make an offer in that Relevant State of ordinary shares or ADSs which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation, in each case in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of ordinary shares or ADSs in circumstances in which an obligation arises for the Company or the underwriters to publish or supplement a prospectus for such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of ordinary shares or ADSs through any financial intermediary, other than offers made by the underwriters, which constitute the final placement of the ordinary shares or ADSs contemplated in this prospectus.

The expression “Prospectus Regulation” means Regulation (EU) 2017/1129 (as amended or superseded).”

In relation to each Relevant State, no ordinary shares or ADSs have been offered or will be offered to the public in that Relevant State, except that offers of ordinary shares or ADSs may be made to the public in that Relevant State:

- to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

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provided that no such offer of ordinary shares or ADSs shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

Each person in a Relevant State who receives any communication in respect of, or who acquires any ordinary shares or ADSs under, the offers to the public contemplated in this prospectus, or to whom the ordinary shares or ADSs are otherwise made available, will be deemed to have represented, acknowledged and agreed to and with the Company and the underwriters that it and any person on whose behalf it acquires ordinary shares or ADSs is a (a) qualified investor within the meaning of Article 2(e) of the Prospectus Regulation; and (b) in the case of any ordinary shares or ADSs acquired by it as a financial intermediary as that term is used in Article 5(1) of the Prospectus Regulation, (i) the ordinary shares or ADSs acquired by it in the offer have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant State other than qualified investors, as that term is defined in the Prospectus Regulation, or in circumstances in which the prior consent the representatives has been obtained to each such proposed offer or resale, or (ii) where ordinary shares or ADSs have been acquired by it on behalf of persons in any Relevant State other than qualified investors, the offer of those ordinary shares or ADSs to it is not treated under the Prospectus Regulation as having been made to such persons.

We, the representatives and their respective affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

For the purposes of this provision, the expression an “offer to the public” in relation to any ordinary shares or ADSs in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any ordinary shares or ADSs to be offered so as to enable an investor to decide to purchase or subscribe for any ordinary shares or ADSs, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Any distributor subject to Directive 2014/65/EU (as amended, “MiFID II”) subsequently offering, selling or recommending the ordinary shares or ADSs is responsible for undertaking its own target market assessment in respect of the ordinary shares or ADSs and determining the appropriate distribution channels for the purposes of the MiFID II product governance rules under Commission Delegated Directive (EU) 2017/593 (“Delegated Directive”). Neither the Company nor any of the underwriters make any representations or warranties as to a Distributor’s compliance with the Delegated Directive.

In accordance with applicable Danish law, we have prepared a Danish prospectus, or the Danish Prospectus. The Danish Prospectus will be made public on, or about, _____, 2020. The Danish Prospectus is prepared for the sole purpose of satisfying applicable Danish securities legal and regulatory requirements in order to list the ordinary shares underlying the ADSs and the ordinary shares offered in this global offering on Nasdaq Copenhagen. The Danish Prospectus may not be relied upon for any other purposes, including with respect to the global offering of ordinary shares and ADSs by us or any other person.

References to Regulations or Directives include, in relation to the United Kingdom, those Regulations or Directives as they form part of United Kingdom domestic law by virtue of the European Union (Withdrawal) Act 2018 or have been implemented in United Kingdom domestic law, as appropriate. The above selling restriction is in addition to any other selling restrictions set out below.

In connection with the offering, the underwriters are not acting for anyone other than the issuer and will not be responsible to anyone other than the issuer for providing the protections afforded to their clients nor for providing advice in relation to the offering.

Notice to Prospective Investors in the United Kingdom

This document is for distribution only to persons who (i) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the

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Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the “Financial Promotion Order”), (ii) are persons falling within Article 49(2)(a) to (d) (“high net worth companies, unincorporated associations etc.”) of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended (“FSMA”)) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as “relevant persons”). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

Notice to Prospective Investors in Switzerland

The ordinary shares or ADSs may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the ordinary shares or ADSs or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the ordinary shares or ADSs have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of ordinary shares or ADSs will not be supervised by, the Swiss Financial Market Supervisory Authority (“FINMA”), and the offer of ordinary shares or ADSs has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (“CISA”). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of ordinary shares or ADSs.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (“DFSA”). This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The ordinary shares or ADSs to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the ordinary shares or ADSs offered should conduct their own due diligence on the ordinary shares or ADSs. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (“ASIC”), in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the “Corporations Act”), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the ordinary shares or ADSs may only be made to persons (the “Exempt Investors”) who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant

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to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the ordinary shares or ADSs without disclosure to investors under Chapter 6D of the Corporations Act.

The ordinary shares or ADSs applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring ordinary shares or ADSs must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The ordinary shares or ADSs have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the ordinary shares or ADSs has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to ordinary shares or ADSs which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to Prospective Investors in Japan

The ordinary shares or ADSs have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, “Japanese Person” shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the ordinary shares or ADSs were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the ordinary shares or ADSs, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the

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SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the ordinary shares or ADSs are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the ordinary shares or ADSs pursuant to an offer made under Section 275 of the SFA except:

- (c) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (d) where no consideration is or will be given for the transfer;
- (e) where the transfer is by operation of law; or
- (f) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in Canada

The ordinary shares or ADSs may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the ordinary shares or ADSs must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

EXPENSES OF THE GLOBAL OFFERING

Set forth below is an itemization of the total expenses, excluding the underwriting commissions, which are expected to be incurred in connection with the sale of ordinary shares and ADSs in the global offering. With the exception of the registration fee payable to the SEC, Nasdaq Global Select Market listing fee and the filing fee payable to FINRA, all amounts are estimates.

<u>EXPENSE</u>	<u>AMOUNT</u>
SEC registration fee	\$ 14,927
Nasdaq Global Select Market entry and listing fee	170,000
FINRA filing fee	15,500
Printing expenses	250,000
Legal fees and expenses	1,600,000
Accounting fees and expenses	521,000
Miscellaneous costs	28,573
Total	<u>2,600,000</u>

LEGAL MATTERS

We are being represented by Cooley LLP, New York, New York with respect to certain legal matters as to United States federal securities and New York State law. The underwriters are being represented by Shearman & Sterling LLP, New York, New York with respect to certain legal matters as to United States federal securities and New York State law. The validity of the ordinary shares and ADSs offered in the global offering and legal matters as to Danish law will be passed upon for us by Gorrissen Federspiel Advokatpartnerselskab, Copenhagen, Denmark. Certain legal matters as to Danish law will be passed upon for the underwriters by Plesner Advokatpartnerselskab, Copenhagen, Denmark.

EXPERTS

The consolidated financial statements of Orphazyme A/S as of December 31, 2019 and 2018, and for each of the two years in the period ended December 31, 2019, appearing in this Prospectus and Registration Statement have been audited by EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S), independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The registered business address of EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S) is Dirch Passers Allé 36, 2000 Frederiksberg, Denmark.

SERVICE OF PROCESS AND ENFORCEMENT OF LIABILITIES

We are organized under the laws of Denmark, with a domicile in the municipality of Copenhagen, Denmark.

Most of the members of the board of directors and the executive board named herein are residents of Denmark or other jurisdictions outside the United States. A substantial portion of ours and such persons' assets are located in Denmark or other jurisdictions outside the United States. As a result, it may not be possible for investors to effect service of process upon such persons or us with respect to litigation that may arise under U.S. law or to enforce against them or our company judgments obtained in U.S. courts, whether or not such judgments were made pursuant to civil liability provisions of the federal or state securities laws of the United States or any other laws of the United States.

There is not currently a treaty between the United States and Denmark providing for reciprocal recognition and enforceability of judgments rendered in connection with civil and commercial disputes and, accordingly, that a final judgment (other than arbitration awards) rendered by a U.S. court based on civil liability would not be enforceable in Denmark. It is uncertain whether Danish courts would allow actions to be predicated on the securities laws of the United States or other jurisdictions outside Denmark. Danish courts are likely to deny claims for punitive damages and may grant a reduced amount of damages compared to U.S. courts.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed a registration statement, including relevant exhibits, with the SEC on Form F-1 under the Securities Act with respect to the underlying ordinary shares represented by the ADSs to be sold in the U.S. offering and the ordinary shares to be sold in the European private placement. We have also filed a related registration statement on Form F-6 with the SEC to register the ADSs. This prospectus, which constitutes a part of the registration statement on Form F-1, does not contain all of the information contained in the registration statement. You should read our registration statements and their exhibits and schedules for further information with respect to us and the ADSs. Statements made in this prospectus concerning the contents of any contract, agreement or other document are summaries of all material information about the documents summarized, but

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are not complete descriptions of all terms of these documents. If we file any of these documents as an exhibit to the registration statement, we refer you to the copy of the document that has been filed for a complete description of its terms. Each statement in this prospectus relating to a document filed as an exhibit is qualified in all respects by the filed exhibit.

Immediately upon the effectiveness of the registration statement on Form F-1 of which this prospectus forms a part, we will become subject to periodic reporting and other informational requirements of the Exchange Act as applicable to foreign private issuers. Accordingly, we will be required to file reports, including annual reports on Form 20-F, and other information with the SEC. All information filed with the SEC can be obtained over the internet at the SEC's website at www.sec.gov.

As a foreign private issuer, we are exempt under the Exchange Act from, among other things, the rules prescribing the furnishing and content of proxy statements, and our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we intend to furnish the depositary with our annual reports, which will include a review of operations and annual audited consolidated combined financial statements prepared in conformity with IFRS, and all notices of shareholders' meetings and other reports and communications that are made generally available to our shareholders.

As a foreign private issuer, we are also exempt from the requirements of Regulation FD (Fair Disclosure) which, generally, are meant to ensure that select groups of investors are not privy to specific information about an issuer before other investors. We are, however, still subject to the anti-fraud and anti-manipulation rules of the SEC, such as Rule 10b-5 of the Exchange Act. Since many of the disclosure obligations required of us as a foreign private issuer are different than those required by U.S. domestic reporting companies, our shareholders, potential shareholders and the investing public in general should not expect to receive information about us in the same amount and at the same time as information is received from, or provided by, U.S. domestic reporting companies.

We will send the depositary a copy of all notices of shareholders meetings and other reports, communications and information that are made generally available to shareholders. The depositary will make such notices, reports and communications available to holders of ADSs and, if we so request, will mail to all record holders of ADSs the information contained in any notice of a shareholders' meeting received by the depositary from us.

We maintain a corporate website at www.orphazyme.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus and our website address is included in this prospectus as an inactive textual reference only.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Orphazyme A/S

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Orphazyme A/S (the Company) as of December 31, 2019 and 2018, the related consolidated statements of profit or loss and other comprehensive income, changes in shareholders' equity and cash flows for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB).

Adoption of IFRS 16

As discussed in Note 1.4 to the consolidated financial statements, the Company changed its method of accounting for leases in 2019 due to the adoption of IFRS 16 Leases.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of 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 financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S)

We have served as the Company's auditor since 2015.

Copenhagen, Denmark

June 30, 2020, except for Notes 3.1 and 3.7, as to which the date is August 5, 2020.

2019 CONSOLIDATED FINANCIAL STATEMENTS**CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME****For the Years Ended December 31,**

DKK 000, except per share data	Note	2019	2018
Research and development expenses	2.1, 2.2	(285,413)	(196,525)
General and administrative expenses	2.3	(50,541)	(35,127)
Operating loss		(335,954)	(231,652)
Financial income	2.6	316	5
Financial expenses	2.6	(7,359)	(3,453)
Loss before tax		(342,997)	(235,100)
Income tax benefit	2.7	5,500	5,500
Net loss for the year		(337,497)	(229,600)
Items that will be reclassified subsequently to the Statement of Profit or Loss:			
Exchange difference from translation of foreign operations net of tax DKK 0		67	42
Total comprehensive loss		(337,430)	(229,558)
Weighted-average shares outstanding		20,002,139	19,986,274
Loss per share, basic and diluted	4.3	(16.87)	(11.49)

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

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As of December 31,

DKK 000			
ASSETS	Note	2019	2018
Non-current assets			
Intangible assets	3.1	10,539	10,744
Right-of-use assets	3.2	13,903	—
Property, plant, and equipment	3.3	3,685	1,940
Corporation tax receivable	2.7	2,750	2,750
Prepayments and deposits	3.4	1,652	2,531
Total non-currents assets		32,529	17,965
Current assets			
Corporation tax receivable	2.7	5,500	5,500
Prepayments and other receivables	3.4	19,137	23,178
Cash	3.6	123,588	394,706
Total current assets		148,225	423,384
Total assets		180,754	441,349
EQUITY AND LIABILITIES	Note	2019	2018
Equity			
Share capital	4.2	19,984	19,939
Share premium	4.2	924,021	924,021
Other reserves		7,982	9,112
Accumulated deficit		(899,018)	(564,823)
Total equity		52,969	388,249
Non-current liabilities			
Borrowings	3.5	51,606	—
Lease liability	3.2	9,813	—
Other non-current liabilities	3.5	378	105
Total non-current liabilities		61,797	105
Current liabilities			
Current borrowings	3.5	12,813	—
Trade payables and accruals	3.5	32,390	42,183
Other liabilities	3.5	20,785	10,812
Total current liabilities		65,988	52,995
Total equity and liabilities		180,754	441,349

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

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

DKK 000	Notes	Share capital	Share premium	Other reserves		Accumulated deficit	Total
				Foreign currency translation reserve	Share-based compensation – acquisition of intangible assets		
Balance as of December 31, 2017		19,928	924,021	—	9,972	(338,219)	615,702
Net loss for the year						(229,600)	(229,600)
Other comprehensive income (loss)				42			42
Total other comprehensive income (loss)				42	—	(229,600)	(229,558)
Transactions with owners:							
Capital increase in connection with issuance of bonus shares	3.1	11			(902)	891	—
Share-based compensation expense	2.5					2,105	2,015
Total transactions with owners		11	—	—	(902)	2,996	2,015
Balance as of December 31, 2018		19,939	924,021	42	9,070	(564,823)	388,249
Net loss for the year						(337,497)	(337,497)
Other comprehensive income (loss)				67		—	67
Total other comprehensive income (loss)				67	—	(337,497)	(337,430)
Transactions with owners:							
Capital increase in connection with issuance of bonus shares	3.1	26			(1,197)	1,171	—
Issuance of Matching Shares, net of costs	2.5	19					19
Share-based compensation expense	2.5	—				2,131	2,131
Total transactions with owners		45	—	—	(1,197)	3,302	2,150
Balance as of December 31, 2019		19,984	924,021	109	7,873	(899,018)	52,969

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Years Ended December 31,

DKK 000	Note	2019	2018
Operating loss		(335,954)	(231,652)
Reversal of non-cash items:			
Equity-settled share-based compensation expense	2.5	2,549	2,105
Depreciation and amortization	3.1, 3.2, 3.3	3,803	1,366
Exchange rate adjustments		—	(491)
Change in working capital:			
Change in prepayments, deposits, and other receivables	3.4	4,920	(14,578)
Change in trade payables, accruals, and other liabilities	3.5	(2,844)	5,943
Corporation taxes received	2.7	5,500	5,500
Interest paid		(4,793)	(2,957)
Net cash used in operating activities		(326,818)	(234,764)
Investing activities			
Purchase of intangible assets	3.1	(508)	(1,603)
Purchase of property, plant, and equipment	3.3	(2,777)	(743)
Net cash used in investing activities		(3,285)	(2,346)
Financing activities			
Proceeds from borrowings	3.5	62,758	—
Repayment of lease obligations	3.2	(3,838)	—
Proceeds from issuance of shares	2.5	19	—
Net cash provided by financing activities		58,939	—
Net change in cash		(271,164)	(237,110)
Effects of changes in exchange rates		46	81
Cash at the beginning of the year		394,706	631,735
Cash at the end of the year		123,588	394,706

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

SECTION 1 Basis of preparation and significant accounting policies

1.1 CORPORATE INFORMATION

Orphazyme A/S (the “Company”) is a late-stage biopharmaceutical company harnessing the amplification of Heat Shock Proteins, or HSPs, in order to develop and commercialize novel therapeutics for the treatment of neurodegenerative orphan diseases. The Company is a limited liability company publicly traded on Nasdaq Copenhagen, ticker symbol ORPHA, with headquarters in Copenhagen, Denmark.

In April 2018, a fully-owned subsidiary, Orphazyme US, Inc., was incorporated in Delaware, USA (together with Orphazyme A/S, “Orphazyme” or the “Group”). Orphazyme US, Inc. will directly support the US market to establish closer relationships with the medical, patient, and financial communities.

These consolidated financial statements were approved by the Board of Directors on June 30, 2020.

1.2 BASIS OF PREPARATION

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

The consolidated financial statements have been prepared on a going concern basis and are presented in Danish Kroner, or DKK, which is both the functional and presentation currency of the Company. Where indicated, amounts are rounded to the nearest thousand. The functional currency of Orphazyme US, Inc. is the US dollar (USD).

Materiality

The consolidated financial statements are prepared based on the concept of materiality, which considers both quantitative and qualitative factors. Items that are considered individually significant or are required under the minimum presentation requirements of IFRS are presented separately. If items are individually immaterial, they are aggregated with other items of similar nature in the financial statements or in the notes.

1.3 SIGNIFICANT ACCOUNTING POLICIES

A detailed description of accounting policies and significant accounting estimates and judgements related to specific financial statement line items is presented in italics in each note to the relevant line item. The consolidated financial statements have been prepared on a historical cost basis except for share-based compensation, which is measured at fair value.

Principles of consolidation

The consolidated financial statements of the Group include the financial statements of the parent company, Orphazyme A/S (the “Parent Company”) and Orphazyme US, Inc., a fully-owned subsidiary over which the Parent Company has control. A company controls an entity when the company (i) is exposed to, or has rights to, variable returns from its involvement with the entity, (ii) has power over the entity (i.e. existing rights that give it the current ability to direct the activities of the entity), and (iii) has the ability to use its power to affect the returns of the entity. The Parent Company reassesses whether it controls an entity if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of an entity begins when the Parent Company obtains control and ceases when the Parent Company has lost control of the entity. Orphazyme US, Inc. has adopted the accounting policies of the Parent Company and therefore the Group’s consolidated financial statements have been prepared by combining similar accounting items on a line-by-line basis. On consolidation, intercompany income and expenses, intercompany receivables, and payables, and unrealized gains and losses on transactions between the consolidated companies are eliminated.

Translation of foreign currencies

Items included in the financial statements of each of the Orphazyme entities are measured using the currency of the primary economic environment in which the entity operates, or functional currency. On initial recognition, transactions denominated in foreign currencies are translated at the foreign exchange spot rate at the transaction date. For monetary assets and liabilities, differences arising between the foreign exchange spot rates at the transaction date and the date of settlement or period-end exchange rates are recognized in the Statement of Profit or Loss as financial income or financial expenses. On consolidation, the assets and liabilities of Orphazyme US, Inc. are translated from USD to DKK at the exchange rate in effect at the balance sheet date and the Statement of Profit or Loss and Other Comprehensive Income is translated from USD to DKK at the date of the underlying transaction or average exchange rate of the period if there are no significant fluctuations in exchange rate throughout the period. The exchange rate differences arising on translation for consolidation are recognized in other comprehensive income (loss).

Segment information

Although Orphazyme established a US subsidiary in 2018, the Group is managed and operated as one business unit that is reflected in the internal reporting. No separate lines of business or separate business entities have been identified with respect to any product candidate or geographical market and no segment information is currently disclosed in the Group's internal reporting. For the years ended December 31, 2019 and 2018, the Group generated no revenue and all non-current assets are located in Denmark.

1.4 SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The use of reasonable estimates and judgements is an essential part of the preparation of the consolidated financial statements. Given the uncertainties inherent in the Group's business activities, Management must make certain significant accounting estimates and judgements, which affect the application of accounting policies and therefore the reported amounts of assets, liabilities, revenue, expenses, and disclosures in the consolidated financial statements. The significant accounting estimates and judgements identified are those that have a significant risk of resulting in a material adjustment to the consolidated financial statements. Management bases its estimates on historical experience, assumptions, and information currently available and deemed to be reasonable at the time the consolidated financial statements are prepared. However, actual amounts may differ from the estimated amounts as more detailed information becomes available. Estimates and assumptions are reviewed on an ongoing basis and, if necessary, changes are recognized in the period in which the estimate is revised. Management has made significant accounting estimates and judgements in the following areas, which are further presented in italics in each note to the relevant financial statement line items:

- Estimate of research and development expenses associated with clinical trials (Note 2.1) and related prepayments (Note 3.4) and accruals (Note 3.5)
- Estimate of inputs and assumptions used in share-based compensation valuation models (Note 2.5)
- Estimate of the fair value of licenses (Note 3.1)
- Estimate relating to the incremental borrowing rate to measure lease liabilities (Note 3.2)
- Judgement regarding the recognition of deferred tax assets related to taxable losses to be carried forward (Note 2.7)
- Judgement regarding management's assessment of the company's ability to continue as a going concern (Note 4.1)

Please refer to the specific referenced notes for further information on the significant accounting estimates and judgements as well as assumptions applied.

1.5 NEW IFRS STANDARDS APPLICABLE TO THE GROUP

On January 1, 2018, the Group adopted IFRS 9, Financial Instruments, which did not have a material impact on the consolidated financial statements. In addition, there have been amendments to IFRS 2, Share-Based Payment, which the Group adopted, but did not have any impact on the Group's consolidated financial statements. The Group has not early adopted any other standard, interpretation, or amendment that has been issued but is not yet effective. IFRS 15, Revenue from Contracts with Customers, was effective on January 1, 2018, however, as the Group does not generate revenue, the standard is not currently applicable.

Updates to the Group's accounting policies

On January 1, 2019, the Group adopted IFRS 16, *Leases*, and IFRIC Interpretation 23 *Uncertainty over Income Tax Treatment*, which are separately discussed below.

IFRS 16 Leases

Upon adoption of IFRS 16, the Group applied a single recognition and measurement approach for all leases except for short-term leases and leases of low-value assets. Refer to Note 3.2 Leases for the accounting policy beginning January 1, 2019. The standard provides specific transition requirements and practical expedients, which have been applied by the Group. On January 1, 2019, Orphazyme adopted IFRS 16 using the modified retrospective method. Under this method, the cumulative effect of initially applying IFRS 16 is recognized at January 1, 2019. Upon adoption, Orphazyme recognized a right-of-use asset and a lease liability based on the present value of the remaining lease payments in the amount of DKK 13 million for the office lease previously classified as an operating lease using a weighted average incremental borrowing rate of 3.54%. Since the application of IFRS 16, Orphazyme has recognized finance expense on the lease liability and depreciation expense on the right-of-use asset.

IFRIC Interpretation 23 Uncertainty over Income Tax Treatment

The Interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of IAS 12 Income Taxes and does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The Interpretation specifically addresses the following:

- Whether an entity considers uncertain tax treatments separately
- The assumptions an entity makes about the examination of tax treatments by taxation
- How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates
- How an entity considers changes in facts and circumstances

The Group determines whether to consider each uncertain tax treatment separately or together with one or more other uncertain tax treatments and uses the approach that better predicts the resolution of the uncertainty. The Group applies significant judgement in identifying uncertainties over income tax treatments. Since the Group operates in a multinational environment, it assessed whether the Interpretation had an impact on its consolidated financial statements. Upon adoption of the Interpretation, the Group considered whether it has any uncertain tax positions, including those relating to transfer pricing. The Group determined, based on its tax compliance that it is probable that its tax treatments will be acceptable by the taxation authorities. The Interpretation did not have an impact on the consolidated financial statements.

SECTION 2 Result of the Year

2.1 RESEARCH AND DEVELOPMENT EXPENSES

§ ACCOUNTING POLICIES

Research expenses comprise costs incurred during the very early stages of the drug development cycle from initial drug discovery until the drug is ready for administration to humans. The activities initially focus on identifying a single drug candidate with a profile that will support a decision to initiate development activities. Before selection of the final drug candidate, it is tested in animals to gather efficacy, toxicity and pharmacokinetic information.

Development expenses comprise costs incurred during the different phases of clinical drug development starting in phase 1, when the drug is administered to humans for the first time, through phases 2 and 3, and subsequent activities to obtain marketing authorizations, which will permit Orphazyme to eventually market and sell the drug products.

In line with industry practice, Orphazyme expenses all research costs. Development costs that do not meet the definition of an asset are also expensed as incurred. Due to regulatory and other uncertainties inherent in the development of new products, development costs do not qualify for capitalization as intangible assets until marketing approval by a regulatory authority is obtained or highly probable.

Clinical trial costs are a significant component of research and development expenses. The Company's clinical trials are performed by third-party Contract Research Organizations (CROs) and in order to estimate the amount of costs to charge to expense Management has developed expense models for each clinical trial based on estimates and assumptions.

The clinical trials generally have three distinctive stages.

- Start-up stage: initial setting up of the trial
- Treatment stage: site and trial management during the dosing period
- Wrap-up stage: close down and reporting of the trial

For each clinical trial for which information about the actual services delivered by the CRO are not provided on a regular current basis, the Company reviews the approved budgets for the clinical trial from the original executed agreements and categorizes the individual costs according to the three stages described above. The start-up activities, which include site recruitment, regulatory applications and investigator meetings, usually are performed reasonably uniformly throughout the start-up stage and the related costs are expensed ratably over this stage, which reflects the manner in which related services are rendered by the CRO.

The start-up stage is followed by the treatment stage, during which patients are dosed with the drug under study and results are monitored and measured. The costs incurred in this stage of the trial, which comprises the major portion of the total cost of the clinical trial, is mainly driven by the number of enrolled patients undergoing treatment. The Company estimates the costs attributable to activities performed in this stage of the trial on a per-patient basis. These costs are expensed over the treatment stage as patients are enrolled and undergo treatment, as reported by the CRO. After the last patient has been treated, the trial begins to be closed down and activities are performed related to data quality assurance and analysis. These activities are performed reasonably uniformly throughout the wrap-up stage and are expensed ratably over this last stage. Other costs, such as central laboratory costs and drug supply costs, are expensed as incurred, which is typically when the service has been rendered or the goods delivered.

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CROs invoice the Company upon the occurrence of predetermined milestones (such as the enrollment of patients); however, the timing of these invoices and the Company's related payments often do not correspond directly to the level of performance of contracted activities. To the extent payments are made by the Company in advance of the related activities performed by the CROs, they are included in prepayments to vendors (see Note 3.4) and expensed in accordance with the expense model discussed above. To the extent that the payments are made by the Company following the performance of the related activities, the expense is reflected as an accrual (see Note 3.5) in accordance with the expense model.

Research and development expenses include costs arising from research and clinical development activities including employee costs for research and development personnel (i.e. salaries, bonuses, employer contributions to pension schemes, share-based compensation), legal expenses related to the protection, defense and enforcement of the Company's intellectual property, as well as depreciation on right-of-use assets associated with facilities and equipment used for research and development purposes. The following table presents research and development expenses recognized for the years ended December 31:

DKK 000	2019	2018
External costs	216,589	152,820
Employee costs (Note 2.4)	64,167	40,281
Facility costs	1,554	2,132
Depreciation and amortization (Notes 3.1, 3.2, 3.3)	3,103	1,292
Total research and development expenses	285,413	196,525

External costs comprise mainly expenses related to third party vendors providing services related to our research and development activities.

Estimate of research and development expenses associated with clinical trials

Accounting for clinical trial costs related to activities performed by Contract Research Organizations (CROs) and other external vendors requires Management to make significant estimates regarding the timing of the expense recognition of these costs. The diverse nature of services being provided by CROs, the different compensation arrangements that exist for each type of service, and the limitation in the availability of information related to when certain clinical activities are performed add complexity to the estimation of the timing of expense recognition for services rendered by CROs and other vendors in connection with clinical trials.

2.2 GOVERNMENT GRANTS

§ ACCOUNTING POLICIES

Government grants are recognized when there is reasonable assurance that the funding will be received, and all underlying conditions will be fulfilled. Income from grants is recognized in the Statement of Profit or Loss as a reduction of the related expenses being reimbursed in the period when the related expenses are incurred.

Government grants comprise research funding from the Danish government and the European Union. The grants received by Orphazyme provide reimbursement for certain project-specific research and development expenses, including wages and salaries. During the year ended December 31, 2019, Orphazyme has received DKK 0.1 million (2018: DKK 2.1 million) in government grant funding, which was receivable as of December 31, 2018.

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As of the year ended December 31, 2019, the total amount still receivable under these grants is DKK 0.4 million (2018: DKK 1.2 million) and is classified as Current Other Receivables in the Statement of Financial Position, as all remaining funding from grants is receivable within the next year (Note 3.4). One grant has been paid to Orphazyme in advance and income in the amount of DKK 0.1 million (2018: DKK 0.3 million) related to this grant has been deferred and presented in the Statement of Financial Position as current other liabilities (Note 3.5). All the grants received are subject to repayment clauses upon breach of conditions to maintain the terms under which the grant was awarded. Orphazyme has complied with and anticipates continuing to fully comply with all such terms.

2.3 GENERAL AND ADMINISTRATIVE EXPENSES

§ ACCOUNTING POLICIES

General and administrative expenses include salaries for administrative employees and Executive Management, remuneration to the Board of Directors, share-based compensation costs, depreciation on right-of-use assets associated with facilities not used for research and development purposes, and investor relations. In addition, we include pre-commercial activities in general and administrative expenses, such as the preparation of an Early Access Program for NPC, tradename costs, market and pricing studies and related costs.

The following table presents general and administrative expenses for the years ended December 31:

DKK 000	2019	2018
External costs	20,326	12,471
Employee costs (Note 2.4)	25,995	15,803
Travel and related expenses	1,166	4,115
Pre-commercial activities	2,355	2,664
Depreciation (Notes 3.2 and 3.3)	699	74
Total general and administrative expenses	50,541	35,127

External costs comprise expenses related to third party vendors providing services such as legal and accounting support, investor relations, and administrative services. Pre-commercial activities include activities in preparation for commercial launch of our product candidate, such as market research.

2.4 EMPLOYEE COSTS

§ ACCOUNTING POLICIES

Employee costs primarily comprise salaries, bonuses, social security contributions, share-based compensation, vacation and sick leave as well as pension contributions. The cost of these benefits is recognized as an expense as services are received. All employee pension plans are defined contribution plans and not defined benefit plans.

Employees are eligible to receive a discretionary bonus subject to certain predefined and individual goals as determined by the Board of Directors. Employees are also eligible to receive an extraordinary bonus at the discretion of the Board of Directors.

Executive Management consists of the Company's Chief Executive Officer and the Chief Financial Officer, also the registered management of the Company. In July 2019, Orphazyme announced that the Board of Directors appointed Kim Stratton as the new Chief Executive Officer, succeeding Anders Hinsby on October 1, 2019. In the event Orphazyme terminates the service agreement with the CEO without cause, Orphazyme is obliged to pay the CEO two times her annual salary as severance at the time of her last salary payment.

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The Executive Management is eligible to receive an annual performance-based cash bonus subject to certain predefined corporate and individual goals as determined by the Board of Directors on an annual basis. A cash bonus received under the short-term incentive program may not exceed 100% of the annual fixed salary of the participants. The Executive Management is also eligible to receive an extraordinary bonus at the discretion of the Board of Directors.

The following table presents Employee Costs, including remuneration to the Board of Directors, for the years ended December 31, 2019 and 2018. Executive Management remuneration includes remuneration to Kim Stratton for the period October 1—December 31, 2019; Anders Vadsholt for the full year; and Anders Hinsby for the full year, as he received salary and benefits for the full year 2019.

REMUNERATION TO INDIVIDUAL MEMBERS OF EXECUTIVE MANAGEMENT (DKK 000)

	2019	2018
Anders Hinsby (former CEO)		
Salary	2,424	1,917
Bonus	1,038	723
Share-based compensation	294	676
Other employee benefits	270	215
Total	<u>4,026</u>	<u>3,531</u>
Kim Stratton (current CEO since Oct 1, 2019)		
Salary	962	—
Bonus	1,025	—
Share-based compensation	—	—
Other employee benefits	215	—
Total	<u>2,202</u>	<u>—</u>
Anders Vadsholt (CFO)		
Salary	1,803	1,411
Bonus	1,250	450
Share-based compensation	406	463
Other employee benefits	260	161
Total	<u>3,719</u>	<u>2,485</u>
Total remuneration to the Executive Management	<u>9,947</u>	<u>6,016</u>

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DKK 000	2019	2018
Employee costs, excluding Executive Management and Board		
Salaries	63,530	38,915
Cash bonus	5,394	3,410
Share-based compensation (Note 2.5)	1,705	1,006
Pensions	4,972	2,686
Other social security contributions	815	322
Other staff costs	766	966
Total employee costs, excluding Executive Management and Board	77,182	47,305
Executive Management remuneration		
Salaries	5,189	3,328
Cash bonus	3,313	1,173
Share-based compensation (Note 2.5)	700	1,139
Pensions	589	372
Other social security contributions	60	4
Other staff costs	96	—
Total Executive Management remuneration	9,947	6,016
Board of Directors remuneration		
Board and committee fees	2,594	2,584
Travel allowance	294	179
Share-based compensation (Note 2.5)	145	—
Total Board of Directors remuneration	3,033	2,763
Total employee costs	90,162	56,084
Recognized as follows in the Statement of Profit or Loss:		
Research and development expenses	64,167	40,281
General and administrative expenses	25,995	15,803
Total employee costs	90,162	56,084
Average number of full-time employees	74	46
Year-end number of full-time employees	86	57

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Remuneration paid to members of the Board of Directors is made up of board and committee fees, a travel allowance, and share-based compensation related to the Restricted Share Units (RSUs) as described in Note 2.5. Board remuneration is recognized as general and administrative expenses in the Statement of Profit or Loss. The following table lists Board of Directors remuneration for the years ended December 31:

**REMUNERATION TO INDIVIDUAL MEMBERS
OF THE BOARD OF DIRECTORS (DKK 000)**

	<u>2019</u>	<u>2018</u>
Georges Gemayel (Chairman of the Board)		
Board and committee fees	470	468
Travel allowance	64	47
Share-based compensation	28	—
Total	<u>562</u>	<u>515</u>
Bo Jesper Hansen (Deputy Chairman of the Board)		
Board and committee fees	395	394
Travel allowance	46	33
Share-based compensation	21	—
Total	<u>462</u>	<u>427</u>
Martin Bonde		
Board and committee fees	259	258
Travel allowance	—	—
Share-based compensation	16	—
Total	<u>275</u>	<u>258</u>
Martijn Kleijwegt		
Board and committee fees	285	284
Travel allowance	46	33
Share-based compensation	16	—
Total	<u>347</u>	<u>317</u>

**REMUNERATION TO INDIVIDUAL MEMBERS
OF THE BOARD OF DIRECTORS (CONTINUED)**

Rémi Droller	2019	2018
Board and committee fees	270	269
Travel allowance	46	33
Share-based compensation	16	—
Total	332	302
Sten Verland		
Board and committee fees	309	307
Travel allowance	—	—
Share-based compensation	16	—
Total	325	307
Anders Hedegaard		
Board and committee fees	270	269
Travel allowance	46	—
Share-based compensation	16	—
Total	332	269
Catherine Moukheibir		
Board and committee fees	336	335
Travel allowance	46	33
Share-based compensation	16	—
Total	398	368
Total remuneration to the Board of Directors	3,033	2,763

2.5 SHARE-BASED COMPENSATION COSTS

§ ACCOUNTING POLICIES

Equity-settled awards

Shares awarded under the long-term incentive program (“LTIP”) are equity-settled awards. The fair value of these awards is determined at the date of grant, resulting in a fixed fair value at grant date that is not adjusted for future changes in the fair value of the awards that may occur over the service period. The fair value of the LTIP awards has been determined using the Monte-Carlo model. Further details of the valuation models are presented below.

The fair value of equity-settled awards with service conditions and non-market performance conditions is recognized as compensation expense pro rata over the service period to the extent such awards are estimated to vest. The compensation expense is recognized together with a corresponding increase in equity over the period in which the performance and/or service conditions are fulfilled. The cumulative expense for the Group’s share-based compensation awards recognized at each reporting date until the vesting date reflects the extent to which the vesting period has expired and Management’s best estimate of the number of instruments that will ultimately vest. The expense or credit in the Statement of Profit or Loss for a period represents the movement in cumulative expense recognized as at the beginning and end of that period.

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In the event that equity instruments are granted conditionally upon an equal number of equity instruments granted in prior periods not being exercised, they are treated as a new grant for the current period and a modification of the equity instruments granted in the prior period.

When the terms of an equity-settled award are modified, the minimum expense recognized is the grant date fair value of the unmodified award, provided that the original terms of the award are met. An additional expense, measured as at the date of modification, is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee. Where an award is cancelled by the entity or by the counterparty, any remaining fair value of the award is expensed immediately in the Statement of Profit or Loss.

Cash-settled awards

The phantom share-based incentive program established by the Group in June 2018 and the Restricted Share Units (RSU) awards to the board of directors are treated as cash-settled awards. A liability is recognized for the fair value of these awards, which is measured initially and at each reporting date up to and including the settlement date, with changes recognized at each reporting date. The fair value is expensed over the period until vesting date with recognition of a corresponding liability. The fair value is determined using the Monte-Carlo model, further details of which are presented below. The fair value of the cash-settled awards, which vest subject to obtaining a specified share price (i.e. market condition), is reported as compensation expense regardless of whether the share price condition is met if all other vesting conditions are met. For these awards, fair value is determined taking into account the probability of meeting the share price target. No expense is recognized for awards that do not ultimately vest. Employees and Executive Management of the Group receive remuneration in the form of both equity-settled and cash-settled awards.

Estimate of inputs and assumptions used in share-based compensation valuation models

Estimating the fair value of the Group's share-based compensation programs requires determination of the most appropriate valuation model, which depends on the terms and conditions of the respective award. This estimate also requires making assumptions to determine the most appropriate inputs to the valuation model, including the expected life of the award, expected volatility, dividend pay-out ratio, and risk-free interest rate.

a) Long-term incentive program (equity-settled)

In connection with the completion of the Company's initial public offering (IPO) on Nasdaq Copenhagen in November 2017, the Executive Management and Key Employees were offered to subscribe for Offer Shares ("Investment Shares") at the Offer Price for a maximum amount corresponding to approximately 15% (CMO) and 20% (CEO, CFO, and CSO) of their respective current annual base salaries.

Under the post-IPO long-term incentive program (2017 LTIP), the Executive Management as well as certain Key Employees of Orphazyme have subscribed to 14,875 ordinary shares (Investment Shares) at the offer price of DKK 80. In April 2018, a Key Employee subscribed to 4,300 Investment Shares at the then-current market price of DKK 67.5.

The participants in the 2017 LTIP may be allocated a number of shares in Orphazyme ("Performance Shares") at a price per Performance Share of DKK 1 at the end of a vesting period of four years from Orphazyme's first day of trading and official listing on Nasdaq Copenhagen. The number of Performance Shares shall be proportional to the potential increase in the price of Orphazyme's shares at the time of exercise compared to the offer price. The potential increase in the price of Orphazyme's shares will be calculated as the volume-weighted average share price as quoted on Nasdaq Copenhagen during the 10 trading days preceding the vesting date. The maximum allocation of Performance Shares will be six shares for the CEO and four shares for the other participants multiplied by the number of Investment Shares subscribed for in connection with the IPO.

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Performance Shares will be allocated on a linear scale with maximum allocation triggered by an 80% increase in share price, whereas no Performance Shares will be allocated if the price of Orphazyme's shares has increased 20% or less at the end of the vesting period. Among other things, vesting is also subject to the participants having maintained ownership of their Investment Shares and continued employment. Based on the number of Investment Shares subscribed for, a total maximum of 86,700 Performance Shares may be issued at the end of the vesting period.

In addition, subject to Board approval, the participants may also be allocated a number of shares in Orphazyme ("Matching Shares") at a price per Matching Share of DKK 1 in connection with the first anniversary of the subscription date of the Investment Shares. The number of Matching Shares shall be equal to the number of Investment Shares subscribed for and vesting will be subject to the participants having maintained ownership of their Investment Shares and continued employment during the one-year vesting period. Based on the number of Investment Shares subscribed for, a total of 14,875 Matching Shares fully vested at the end of the vesting period in November 2018. As of December 31, 2018, those Matching Shares had vested in full but had not yet been issued to the participants.

The remaining 4,300 Matching Shares vested in March 2019, at which time all 19,175 Matching Shares were issued in March 2019. Against a nominal payment of DKK 1 per share.

In August 2019, the Company initiated a 2019 long-term investment program (2019 LTIP) for the Executive Management and certain Key Employees with the same terms and conditions as the 2017 LTIP, i.e. Matching Shares and Performance Shares. After one year following the grant date, 31,250 matching shares will fully vest. The maximum number of performance shares that can vest in the 2019 LTIP is 125,000.

The fair value of all the LTIP awards was estimated using a Monte-Carlo simulation model at the respective grant dates, considering the terms and conditions on which the awards were granted.

The risk-free interest rate has been estimated based on Danish government bonds with similar maturities. Expected volatility has been determined based on the historic volatility of comparable listed companies. The company does not plan to pay out dividends in the foreseeable future.

The following table presents the fair value of each program and the inputs used in the valuation models at the respective grant dates:

Program Grant date	2019 LTIP Aug 2019	2017 LTIP Apr 2018	2017 LTIP Nov 2017
Fair value at the measurement date (DKK 000)	6,214	714	3,895
Dividend yield (%)	—	—	—
Expected volatility (%)	51.8%	41.8%	46.6%
Risk-free interest rate (%)	(0.70%)	(0.28%)	(0.43%)
Expected life of awards (years)	3.42	3.58	3.88
Weighted average share price (DKK)	62.6	67.5	80

The weighted average remaining contractual life of the 2017 LTIP awards outstanding at December 31, 2019 was 1.88 years (2018: 2.88 years). The weighted average remaining contractual life of the 2019 LTIP awards outstanding at December 31, 2019 was 3.67. The exercise price for each LTIP award outstanding as of December 31, 2019 was DKK 1 (2018: DKK 1).

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The table below summarizes the activity related to the LTIP awards for the years ended December 31:

DKK 000	Executive Management	Key Employees	Total awards	Awards exercisable
Outstanding at December 31, 2017	9,000	5,875	14,875	—
Granted	—	4,300	4,300	—
Exercised	—	—	—	—
Expired	—	—	—	—
Forfeited	—	—	—	—
Outstanding at December 31, 2018	9,000	10,175	19,175	14,875
Granted	6,250	25,000	31,250	—
Exercised	(9,000)	(10,175)	(19,175)	—
Expired	—	—	—	—
Forfeited	—	—	—	—
Outstanding at December 31, 2019	6,250	25,000	31,250	—

For the year ended December 31, 2019, DKK 2.1 million (2018: DKK 2.1 million) was recognized as compensation expense related to the LTIP awards, with DKK 0.7 million recognized as research and development expenses and DKK 1.4 million recognized as general and administrative expenses. Of the total expense, DKK 0.7 million (2018: DKK 1.1 million) is attributed to the Executive Management.

b) Phantom share-based incentive program (cash-settled)

In June 2018, Orphazyme introduced a four year phantom share-based incentive program (the “2018 Phantom Shares Program”) for all employees other than the Executive Management and Key Employees under the LTIP.

In August 2019, Orphazyme initiated a 2019 Phantom Shares Program with the same terms and conditions as the 2018 Phantom Shares Program.

The Phantom Shares Programs are based on the share price of the Company and entitles the participants to a potential cash bonus if there has been an increase of at least 20% in Orphazyme’s share price compared to the entry price at the grant date. The Phantom Shares Programs will not have any dilutive effect on the shareholders of Orphazyme as the phantom shares do not constitute or qualify for actual shares in Orphazyme.

The overall objectives of the Phantom Shares Programs are (i) to retain qualified employees, (ii) to create long-term incentive for the participants, and (iii) to align the interests of the employees with those of Orphazyme’s shareholders. Each employee participating in the program earns the right to a certain number of phantom shares per month, depending on the employee’s position. Subject to any adjustments to the Phantom Shares Programs made by the Board of Directors due to, for example, changes in Orphazyme’s share capital structure or other significant events, each employee will be eligible to receive up to a total of 144 or 288 phantom shares under the program. By the end of each calendar year of the four-year program, the participants will have earned phantom shares free of charge.

The entry price per phantom share for both programs was DKK 61 and has been calculated on the basis of the volume-weighted average closing price of Orphazyme’s share on Nasdaq Copenhagen during a period of 10 trading days prior to the introduction of the respective Phantom Shares Program. The phantom shares will automatically be settled in cash at the end of January 2023 for the 2018 Phantom Shares Program and at the end of January 2024 for the 2019 Phantom Shares Program by subtracting the entry price per share from the market price per share and multiplying the change by the total number of granted phantom shares, but only if Orphazyme’s market price per share at that date exceeds the entry price per share by at least 20%. The market

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price per share will be based on the volume-weighted average closing price of Orphazyme's shares on Nasdaq Copenhagen during a period of 10 trading days prior to the settlement of the phantom shares.

The employee's cash award for each program is capped and cannot exceed a gross amount of DKK 37,500 or DKK 75,000 per employee per program, depending on the number of phantom shares allocated to the respective employee under the program. Based on the number of participants in the Phantom Shares Programs as of December 31, 2019 and 2018, the programs are expected to consist of up to a total of 12,750 and 8,361 phantom shares, respectively.

As of December 31, 2019 and 2018, all phantom shares granted under the Phantom Shares Program were only granted to employees of Orphazyme. No phantom shares were forfeited or expired, and none of the phantom shares were eligible for exercise.

As the Phantom Shares Programs are cash-settled, the fair value of the phantom shares granted as part of the program is estimated at each reporting date. For the year ended December 31, 2019, an aggregate amount of DKK 0.3 million (2018: DKK 0.04 million) was recognized as compensation expense related to the Phantom Shares Programs, with a corresponding amount recognized as a non-current liability (Note 3.5).

The risk-free interest rate has been estimated based on Danish government bonds with similar maturities. Expected volatility has been determined based on the historic volatility of comparable listed companies. The following table presents the inputs to the Monte-Carlo model used to estimate the fair values of the phantom shares as of December 31:

Valuation date: Program:	December 31, 2019		Dec 31, 2018
	2019 Program	2018 Program	2018 Program
Fair value at valuation date (DKK 000)	347	205	73
Dividend yield (%)	—	—	—
Expected volatility (%)	57.4%	57%	52.3%
Risk-free interest rate (%)	(0.50%)	(0.63%)	(0.34%)
Expected life of awards (years)	4	3,08	4.08
Weighted average share price (DKK)	72,4	68,6	43.35

c) Restricted Share Units (cash-settled)

In August 2019, Restricted Share Units (2019 RSUs) were granted to members of the Board of Directors. Participants may annually be granted a number of RSUs with a value corresponding to up to 50% of the participant's fixed annual base fee as member of the Board of Directors, not including committee membership fees. The value is calculated on the basis of the volume-weighted average share price of Orphazyme's shares as quoted on Nasdaq Copenhagen during the ten trading days preceding the grant date. The 2019 RSUs vest from the grant date to the date of the next annual general meeting, being March 26, 2020. Upon vesting, RSUs may be exercised within a period of twelve months from vesting (Exercise Period) at a price corresponding to the volume-weighted average share price during the ten trading days preceding the grant date (Exercise Price). In the event of a participant's resignation from the Board of Directors, any unvested RSUs will lapse without any rights of compensation. A decision not to be re-elected is not a resignation from the Board of Directors.

The RSUs are classified as a cash-settled program, as the Board of Directors may choose to settle any vested RSUs in cash. In such event, the cash settlement amount is based on the difference between the Exercise Price and the volume-weighted average share price as quoted on Nasdaq Copenhagen during the ten trading days preceding the first day of the Exercise Period.

The fair value of the 2019 RSUs was calculated using a Black-Scholes valuation model with the inputs shown in the following table. As the RSUs may be settled in cash, we have re-valued them as of year-end with

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updated inputs and recognized a cumulative share-based compensation expense in the amount of DKK 0.1 million and a corresponding short-term liability as of December 31, 2019. The Exercise Period is one year and for valuation purposes we have assumed exercise upon vesting, as the RSUs may be settled in cash.

As of December 31, 2019 no RSUs were forfeited or expired, and none of the RSUs were eligible for exercise.

The following table presents the inputs to the Black-Scholes model used to estimate the fair value of the 2019 RSUs at year-end:

	<u>Dec 31, 2019</u>
Fair value at valuation date (DKK 000)	232
Dividend yield (%)	—
Expected volatility (%)	44.4%
Risk-free interest rate (%)	(0.73%)
Expected life of awards (years)	0.25
Weighted average share price (DKK)	72.4

d) Bonus shares issued to KLSDC and UCL in connection with the license agreement

Please see Note 3.1.

For the years ended December 31, the following amounts were recognized as share-based compensation:

DKK 000	2019	2018
Long-Term Incentive Plans (LTIPs)	2,131	2,105
Share-based compensation included in equity	2,131	2,105
Phantom share programs	273	39
Restricted Share Units	145	—
Share-based compensation accrued as liabilities	418	39
Total share-based compensation expense recognized	<u>2,549</u>	<u>2,144</u>

2.6 FINANCIAL INCOME AND FINANCIAL EXPENSES

§ ACCOUNTING POLICIES

Financial income and expenses include interest income and expense, gains and losses due to changes in foreign exchange rates and other immaterial miscellaneous items.

Beginning January 1, 2019, interest expense related to the right-of-use assets and interest expense related to the Loan Agreement are also recognized as financial expenses.

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The following table presents the various items of financial income and expense recognized for the years end December 31:

DKK 000	2019	2018
Interest income on cash balances	316	5
Total financial income	316	5
Interest expense on Loan Agreement (Note 3.5)	3.239	—
Write-off of transaction costs for Loan Agreement tranche 2 (Note 3.5)	1.678	—
Loss on embedded call option (Note 3.5)	354	—
Interest expense on lease liabilities (Note 3.2)	351	—
Loss on lease modification (Note 3.2)	216	—
Interest expense on cash balances	1.213	2,824
Foreign currency exchange loss	229	490
Bank fees and other charges	79	139
Total financial expenses	7.359	3,453

2.7 INCOME TAXES

§ ACCOUNTING POLICIES

Income tax benefit includes the current benefit due from the current period's taxable loss and deferred tax adjustments. The benefit is comprised primarily of refundable tax credits for costs incurred in connection with research and development activities under the Danish Tax Credit Regime.

Corporation tax receivable is recognized in the balance sheet as the tax benefit computed on the taxable loss for the year, adjusted for any changes to the prior year benefit due to changes in the taxable loss of prior years and for any taxes already paid or refunded.

Deferred tax is measured using the balance sheet liability method on all temporary differences between the carrying amount and the tax value of assets and liabilities, with the exception of temporary differences occurring at the time of acquisition and liabilities neither affecting the result of operation nor the taxable income.

As of December 31, 2019, there are no tax audits in process nor has management been notified of any pending tax audit.

Judgement regarding the recognition of the deferred tax assets related to taxable losses to be carried forward

Orphazyme is subject to income taxes in Denmark and in the U.S.A. The Company recognizes deferred income tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilized. Significant judgment is required to determine the amount of deferred tax assets that may be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. This judgment is made periodically after considering current facts and circumstances, budgets and business plans as well as the risks and uncertainty associated with the Company's ability to successfully commercialize and defend its intellectual property. After consideration of these factors, Management has concluded that as regulatory approval has not yet been obtained as of December 31, 2019, the deferred income tax assets related to taxable losses carried forward do not meet the criteria for being recognized as assets in the Statement of Financial Position.

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The Company's tax losses can be carried forward infinitely subject to the general rules on limited deductibility due to ownership changes. In Denmark, the Company's ability to use tax loss carry forwards in any one year is limited to 100% of the first DKK 8.4 million of taxable income plus 60% of taxable income above DKK 8.4 million.

For the years ended December 31, 2019 and 2018, the Company has unrecognized net tax loss carry-forwards in the Danish entity in the amount of DKK 425 million and DKK 280 million, respectively.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulations are subject to interpretation or uncertainty and establishes provisions, where appropriate. To date, there have not been any provisions established for uncertain tax positions.

The following table presents the total income tax benefit for the years ended December 31:

DKK 000	2019	2018
Current tax benefit on net loss	75,459	51,722
Tax credit research and development expenses	5,500	5,500
Change in unrecognized deferred tax before tax credit	(74,961)	(51,850)
Permanent differences	(498)	128
Total income tax benefit for the year	5,500	5,500

The following table presents the reconciliation of the effective tax rate to the statutory corporate income tax rate in Denmark.

DKK 000	2019	2018
Net loss before tax	(342,997)	(235,100)
Corporate income tax rate in Denmark	22%	22%
Computed income tax benefit	75,459	51,722
<i>Tax effect of:</i>		
Other non-deductible expenses including increased R&D deductions for tax purposes and share-based compensation	(498)	128
Deferred tax asset not recognized after tax credit	(69,461)	(46,350)
Total income tax benefit for the year	5,500	5,500

The following table presents the carrying amount of deferred tax in the Statement of Financial Position:

DKK 000	2019	2018
Tax deductible losses	93,484	61,647
Deferred tax on intangible assets	74,050	35,887
Other temporary differences	758	738
	168,292	98,272
Deferred tax asset not recognized	168,292	98,272
Carrying amount included in the Statement of Financial Position	—	—

SECTION 3

Operating assets and liabilities

3.1 INTANGIBLE ASSETS

§ ACCOUNTING POLICIES

Intangible assets comprises license rights to develop and commercialize products and are acquired separately and measured on initial recognition at cost. For acquisition of intangible rights involving equity-settled share-based payment transactions, Management measures the fair value of the rights received and the corresponding increase in equity by reference to the fair value of the rights received, unless that fair value cannot be estimated reliably. If Management cannot estimate reliably the fair value of the rights received, it measures the fair value and the corresponding increase in equity by reference to the fair value of the equity instruments granted.

Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses. The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives such as license rights to develop and commercialize products are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired.

The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at the end of each reporting period. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are considered to modify the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in the Statement of Profit or Loss in the expense category that is consistent with the function of the intangible assets.

Estimate of the fair value of licenses

Licenses contains an agreement entered into with the University of Kansas and University College London, in which the Company will obtain access to data and knowhow generated in the course of research in connection with the sIBM trial. Consideration for the license is to be paid out by issuing new shares to the contract partners for a value corresponding to the costs incurred during the preceding calendar year. The valuation of the license upon the execution of the agreement involves uncertainty and was estimated by Management based on the expected costs over the contract period. In addition, the estimation of the duration of a license agreement at times involves uncertainty if termination is dependent on a time limit after successful commercialization. Management has considered potential commercialization dates and will re-assess this estimate on an ongoing basis.

CytRx Asset Purchase Agreement

In May 2011, Orphazyme entered into an Asset Purchase Agreement with the US biopharmaceutical company CytRx. Pursuant to this agreement, CytRx sold and transferred certain preclinical and clinical data, patents and other intellectual property rights, and other assets, including contractual rights and obligations relating to a portfolio of chemical compounds, including arimoclomol, to Orphazyme. Under the terms of the Asset Purchase Agreement, Orphazyme agreed to make future payments to CytRx that were contingent upon the achievement of specified clinical, regulatory, and sales milestones. These payments are further disclosed in Note 3.7.

In 2016, the Company paid CytRx USD 0.1 million (DKK 0.6 million) for achievement of a clinical milestone for the first product candidate. In August 2018, the Company made a milestone payment of USD 250,000 (DKK 1.6 million) upon the enrollment of the first patient in the ALS clinical trial. The Company

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capitalizes amounts paid to CytRx as an acquired license right if the recognition criteria under IAS 38 is met. Management assesses that the consideration paid reflects market expectations about the probability that future economic benefits will flow to the Company. The acquired license is not being amortized until approval of the underlying asset has been received from regulatory authorities.

The Asset Purchase Agreement further includes sales milestones and royalty payments to be made by Orphazyme based on a specified percentage of any eventual net sales of products containing one of the compounds purchased. In addition, under the terms of the Asset Purchase Agreement, the Company was assigned and became party to a royalty agreement with ALS Charitable Remainder Trust pursuant to which the Company is obliged to pay a 1% royalty to the ALS Charitable Remainder Trust on global net sales of products to treat ALS. Orphazyme has no liabilities prior to the occurrence of future sales of products and accordingly neither such liabilities nor contingent consideration have been recognized as part of the license agreement.

License Agreement with KLSDC and UCL

In 2017, the Company entered into a license agreement with KU Center for Technology Commercialization Inc., University of Kansas, Kansas Life Sciences Development Company, Inc., (“KLSDC”) and UCL Business PLC (“UCL”) granting Orphazyme the right to develop and commercialize products under all data generated in the course of the on-going Phase 2/3 clinical trial on arimoclomol for the treatment of sIBM worldwide. The total consideration for the license is to be paid out in bonus shares to KLSDC and UCL up to an aggregate value of USD 2.5 million (DKK 15.8 million), depending on the amount of grants awarded to KLSDC and UCL for use in the trial. At the time the license agreement was executed, Management estimated the aggregate amount of the funding to be received by KLSDC and UCL to be USD 1.6 million (DKK 10 million), which has been recognized as an intangible asset (License) with a corresponding increase in equity reserves (Share-based compensation—acquisition of intangible assets).

Consideration to KLSDC and UCL is payable in shares of the Company (“Bonus Shares”) each January and is based on incurred costs reported by KLSDC and UCL for the previous year. As at December 31, 2018 the aggregate costs incurred by KLSDC and UCL amounted to USD 0.2 million (DKK 1.2 million), and a total of 26,060 Bonus Shares were issued to KLSDC and UCL in January 2019, based on the average 30-day closing price of Orphazyme’s shares. In addition, at the time of the share issuance the equity reserve was decreased by DKK 1.2 million, which represents the market value of the shares issued. See Note 4.7 for Bonus Shares issued in January 2020 in connection with the 2019 costs incurred by KLSDC and UCL.

Under the terms of the license agreement, Orphazyme shall furthermore pay an aggregate royalty of a low single-digit percentage of net sales of products sold for the treatment of sIBM. Orphazyme expects to generate income from such products sold for the treatment of sIBM which will exceed any royalty payments due. Orphazyme has no liabilities prior to the occurrence of future sales of products sold for the treatment of sIBM and accordingly, neither such liabilities nor contingent considerations have been recognized as part of the rights acquired.

The license is being amortized over the duration of the license agreement, which has been estimated to be approximately 14 years. Amortization expense for the years ended December 31, 2019 and 2018 amounts to DKK 0.7 million and DKK 0.7 million, respectively, and is recognized within research and development expenses.

License Agreement with the University of Miami

In September 2019, the Company entered into an exclusive license agreement with the University of Miami. Pursuant to the exclusive license agreement, the Company was granted a global royalty-bearing, exclusive license to all data, know-how, inventions and technology generated by the University of Miami and certain other institutions in a Phase 2 clinical trial of arimoclomol in ALS with the A4V SOD1 mutation to research, develop, make, use or sell certain pharmaceutical products or processes containing arimoclomol.

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Under the terms of the exclusive license agreement, the Company made an up-front cash payment of \$75,000 (DKK 0.5 million) and further agreed to make certain future payments, including (i) a development milestone payment of \$1,150,000 (DKK 7.7 million) upon receiving regulatory approval for a pharmaceutical product containing arimoclomol for which the intended indication is ALS if the institution's Phase 2 clinical trial results were used in support of such regulatory approval, (ii) annual license fees from 2023 until the earlier of 2033 or termination of the agreement for a maximum aggregate amount of \$570,000 (DKK 3.8 million), and, (iii) beginning on the date of first commercial sale by the Company, its affiliates or sublicensees of a licensed product or licensed process in a country, a low single-digit royalty on net sales of licensed products or licensed processes on a product-by-product and country-by-country basis for a period of ten years thereafter unless the agreement is terminated earlier. Any annual license fees will be creditable against other payments due in the same calendar year.

Orphazyme has no liabilities prior to the occurrence of future sales of products and accordingly neither such liabilities nor contingent consideration have been recognized as part of the license agreement.

The up-front cash payment was capitalized as an acquired license right, which is not being amortized until approval of the underlying asset has been received from regulatory authorities.

The following table presents the cost and respective amortization of the licenses held by Orphazyme:

DKK 000	2019
Cost at December 31, 2017	9,972
Additions	1,603
Cost at December 31, 2018	11,575
Additions	508
Cost at December 31, 2019	12,083
Accumulated amortization at December 31, 2017	119
Amortization expense	712
Accumulated amortization at December 31, 2018	831
Amortization expense	713
Accumulated amortization at December 31, 2019	1,544
Net carrying value at	
December 31, 2018	10,744
December 31, 2019	10,539

3.2 LEASES

§ ACCOUNTING POLICIES

The Group has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. The details of accounting policies under IAS 17 and IFRIC 4 are disclosed separately if they are different from those under IFRS 16.

Policy applicable before January 1, 2019

Prior to January 1, 2019, the Group classified a lease at its inception date as a finance lease or an operating lease. As lease contract where the lessor retains the significant risks and rewards associated with ownership of the asset was classified as an operating lease. A lease contract that transferred substantially all the risks and rewards associated with ownership to the Group was classified as a finance lease. The Group had not entered into any finance leases and was only party to operating leases as a lessee.

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Operating lease payments were recognized as an operating expense in the Statement of Profit or Loss on a straight-line basis over the lease term. Lease payments related to facilities used for research purposes were recognized in Research and Development expenses. Lease payments related to facilities not used for research purposes were recognized in General and Administrative expenses.

Policy applicable from January 1, 2019

At contract inception, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group is party to lease agreements only in which it is a lessee and not a lessor.

As a lessee, the Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

Right-of-use assets

The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received.

Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful life of the underlying asset. If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset, which for the operating equipment under lease is ten years. The right-of-use assets are also subject to impairment.

Lease liabilities

At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognized as expenses in the period in which the event or condition that triggers the payment occurs. In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset. The Group's non-current lease liabilities are included as a separate line item on the Group's consolidated balance sheet and the current portion of lease liabilities is included in Other current liabilities.

Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered to be low value. Lease payments on short-term leases and leases of low-value assets are recognized as expense on a straight-line basis over the lease term.

Lease modifications

Lease modifications are accounted for at the effective date of modification, which is the date when both parties agree to the lease modification. Modifications are accounted for either as a separate lease or as a remeasurement of the initial lease. A modification is accounted for as a separate lease if both of the following conditions are met: (a) the modification increases the scope of the lease by adding the right to use one or more underlying assets; and (b) the consideration for the lease increases by an amount equivalent to the stand-alone price for the underlying asset. For a modification that is not a separate lease, the lease liability is remeasured using a discount rate determined at the effective date of the modification.

Estimate relating to the incremental borrowing rate

The Group cannot readily determine the interest rate implicit in its leases, therefore it uses its incremental borrowing rate to measure lease liabilities. This is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. As there are no observable rates available for such a rate, the Group estimates its incremental borrowing rate using observable inputs, such as market interest rates, and is required to make certain entity-specific estimates.

The Group has lease contracts for its headquarters in Copenhagen and for machinery used in its operations. The lease terms range from three to five years. During 2019 the lease contract for its headquarters in Copenhagen was modified to include additional space, a true-up to market value for the lease as a whole, and an extension of the whole lease term. The modification was accounted for as a change in the scope of the existing lease and therefore the initial lease was remeasured on the effective date of the modification at the weighted average incremental borrowing rate of 5.38%. The effect on the right-of-use assets, lease liabilities and the Statement of Profit or Loss is disclosed in the tables below.

The following table presents the carrying amounts of right-of-use assets recognized and the movements during the period:

DKK 000	Office buildings	Operating equipment	Total
At January 1, 2019	13,006	—	13,006
Additions	—	4,008	4,008
Depreciation expense	(1,858)	(200)	(2,058)
Modifications	(1,053)	—	(1,053)
At December 31, 2019	10,095	3,808	13,903

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The following table presents the carrying amounts of lease liabilities and the movements during the period:

DKK 000	2019
At January 1, 2019	13,006
Additions	4,008
Accretion of interest	351
Payments	(3,838)
Modifications	(838)
At December 31, 2019	12,689
Current	2,876
Non-current	9,813

The maturity analysis of lease liabilities is disclosed in Note 3.5

The following are the amounts recognized in the Statement of Profit or Loss:

DKK 000	2019
Depreciation expense of right-of-use assets (R&D)	1,847
Depreciation expense of right-of-use assets (G&A)	211
Interest expense on lease liabilities	351
Loss on lease modification	216
Total amount recognized in the Statement of Profit or Loss	2,625

3.3 PROPERTY, PLANT, AND EQUIPMENT

§ ACCOUNTING POLICIES

Property, plant, and equipment includes IT, lab and other equipment, furniture and leasehold improvements that are measured at cost less accumulated depreciation and impairment losses. Cost includes the acquisition price and costs directly related to the acquisition until the time the asset is ready for use. The residual value of equipment is not material. Depreciation is calculated on a straight-line basis over the expected useful life of the asset, being 3-5 for equipment and furniture. Leasehold improvements are depreciated over the shorter of the useful life of the improvement or the remaining lease term. The useful life of assets and method of depreciation are reviewed by management at least each year-end or more often based on changes in facts and circumstances. Changes in useful lives or residual values are adjusted prospectively as changes in accounting estimates. In addition, the Company has fully depreciated equipment still in use.

Property, plant, and equipment is required to be tested for impairment when there are impairment indicators present. Impairment tests are conducted at the individual asset level, or at the lowest level for which separately identifiable cash flows for groups of assets exist. Impaired assets or asset groups are written down to their recoverable amount, which is the higher of the value in use and the net realizable value of the asset or asset group, with impairment charges allocated proportionately to the assets within the impaired asset group.

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The following table presents the Company's Property, plant and equipment as of the years presented:

DKK 000	Furniture and equipment	Leasehold improvements	Total
Cost at December 31, 2017	3,732	346	4,078
Additions	687	56	743
Disposals	—	—	—
Cost at December 31, 2018	4,419	402	4,821
Additions	1,113	1,664	2,777
Cost at December 31, 2019	5,532	2,066	7,598
Accumulated depreciation at December 31, 2017	2,183	44	2,227
Depreciation expense	578	76	654
Accumulated depreciation at December 31, 2018	2,761	120	2,881
Depreciation expense	852	180	1,032
Accumulated depreciation at December 31, 2019	3,613	300	3,913
Net carrying value at			
December 31, 2018	1,658	282	1,940
December 31, 2019	<u>1,919</u>	<u>1,766</u>	<u>3,685</u>

There has been no impairment of property, plant and equipment for the years ended December 31, 2019 and 2018. Depreciation expense is included within operating loss as follows:

DKK 000	2019	2018
Research and development expenses	544	580
General and administrative expenses	489	74
Total depreciation expense	<u>1,033</u>	<u>654</u>

3.4 PREPAYMENTS, DEPOSITS, AND OTHER RECEIVABLES

§ ACCOUNTING POLICIES

Prepayments

Prepayments include advance payments made to vendors that will be incurred and expensed in subsequent financial reporting periods. When the period for full expense recognition is longer than one year from the balance sheet date, the portion to be expensed subsequent to one year is classified as non-current.

Deposits

Deposits include advance payments made to vendors to be settled upon completion of the underlying contract. When the contract term is longer than one year from the balance sheet date, the deposit is classified as non-current.

Other receivables

Other receivables include current and non-current amounts due to the Company.

Sales tax

Expenses and assets are recognized net of the amount of sales tax, except:

- when the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case, the sales tax is recognized as part of the cost of acquisition of the asset or as part of the expense item, as applicable
- when receivables and payables are stated with the amount of sales tax included

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the Statement of Financial Position.

Estimate of prepayments related to clinical trial development costs

As explained in Note 2.1, Orphazyme incurs substantial costs associated with clinical trials related to its development programs and there is a high degree of estimation involved in accounting for clinical trial development costs. In particular, certain CROs and vendors are paid upfront in connection with clinical activities and Management is required to estimate the timing of the prepayment release to expense. This expense for the year is estimated by using an expense model, as described in Note 2.1.

The following items comprised non-current prepayments and deposits as of December 31:

DKK 000	2019	2018
Deposits with vendors	295	1,266
Prepayments to vendors	465	633
Leasehold deposit	892	632
Total non-current prepayments and deposits	1,652	2,531

Non-current prepayments and deposits mainly includes a deposit with a CRO for advance payment of pass-through costs in connection with a clinical trial, prepaid insurance, and the lease deposit on our headquarters in Copenhagen.

Current prepayments and other receivables are specified below:

DKK 000	2019	2018
Prepayments to vendors	13,355	14,233
Grant income receivable	357	1,237
VAT receivable, net	2,521	1,468
Foreign VAT receivable	1,304	6,116
Other current receivables	1,600	124
Total current prepayments and other receivables	19,137	23,178

Current prepayments to vendors includes prepayments made to CROs for clinical trial costs of DKK 5.0 million (2018: DKK 8.6 million).

3.5 FINANCIAL ASSETS AND LIABILITIES

§ ACCOUNTING POLICIES

Financial assets

Initial recognition and measurement

Financial assets that meet certain criteria are classified at initial recognition as subsequently measured at amortized cost, fair value through other comprehensive income (OCI), or fair value through profit or loss. The Group does not hold any financial assets meeting these classification criteria except cash and certain types of other receivables. Generally, the Company's financial assets are available to support current operations and amounts expected to be realized within the next twelve months are classified in the Statement of Financial Position as current assets.

The Group's financial assets are recognized initially at fair value plus, in the case of financial assets not carried at fair value through profit and loss, transaction costs that are attributable to the acquisition of the financial asset, if any. Financial instruments recognized at fair value are allocated to one of the following valuation hierarchy levels:

- *Level 1: Quoted (unadjusted) prices in active markets for identical assets or liabilities.*
- *Level 2: Other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly.*
- *Level 3: Techniques that use inputs that have a significant effect on the recorded fair value that are not based on observable market data.*

Subsequent measurement

Historically, the Group's receivables are due within a twelve-month period and therefore the impact of using the effective interest rate method on the Group's financial statements has been immaterial.

Financial asset impairment

The Group assesses at the end of each reporting period whether there has been objective evidence that a financial asset may be impaired. Impairment losses are recognized if there is objective evidence of impairment and the evidence indicates that estimated future cash flows will be negatively impacted. The Group did not assess an impairment of a financial asset for either of the years ended December 31, 2019 or 2018.

Financial liabilities

Borrowings

Financial liabilities, including borrowings, are initially measured at fair value less transaction costs incurred. Subsequently, borrowings are measured at amortized cost. Amortized cost is calculated as original cost less instalments plus/less the accumulated amortization of the difference between cost and nominal value, so that the effective interest rate is recognized in the income statement over the loan period. Financial liabilities are derecognized when settled.

The portion of the debt maturing after one year is presented as non-current debt and the remainder as current debt.

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Trade payables and accruals

Trade payables and accruals relate to the Group's purchase of products and services from various vendors in the normal course of business.

Other liabilities

Other payables are measured at net realizable value. The amount payable to employees for the Phantom Shares Program (Note 2.5) is classified as non-current and is measured at fair value, at Level 2 in the fair value hierarchy.

Estimate of accruals related to clinical trial development costs

As explained in Note 2.1, Orphazyme incurs substantial costs associated with clinical trials related to its development programs and there is a high degree of estimation involved in accounting for clinical trial development costs. As described in Note 2.1, Management uses an expense model to estimate the timing of expenses recognition in each period and related accruals at the end of the year.

The Group's financial assets include mainly cash (Note 3.6). The Group has no derivative financial assets nor has there been a change in classification of a financial asset after initial recognition and measurements as discussed herein. Financial assets are not acquired for trading or speculative purposes, nor has the Group placed any assets as security for loans at either December 31, 2019 or 2018.

In August 2019, Orphazyme entered into a structured debt facility ("Loan Agreement") with Kreos Capital to secure funding of €9 million (Tranche 1") to be repaid over forty-two months ("Loan Term"), with the first twelve months requiring interest only payments at nominal annual fixed interest rate of 9.75% and the remaining thirty months requiring equal installments comprising principal and interest. Early repayment of the borrowed amounts may be made in whole but not in part, with the repayment amount being equal to the principal outstanding plus the sum of all the interest repayments that would have been paid throughout the remainder of the loan discounted at an annual rate of 4.0%.

In addition, the lender may, at any time in its sole discretion in eight years, depending on certain events defined in the Loan Agreement, notify the Company that a Facilitation Fee is due and payable ("Notification").

The Facilitation Fee is an amount equal to the greater of (i) 10% of the aggregate amount of the amount borrowed and (ii) the percentage increase in the Company's share price between the 30-day volume-weighted average share price on the date of the Loan Agreement and the closing share price on the day immediately preceding the date of the notification applied to the aggregate amount of amounts borrowed. The variability arising from the change in Orphazyme's share price is not closely related to the host debt instrument characterized mainly by interest rate and credit risk. Therefore, the embedded equity-linked amount is separated from the host debt instrument and accounted for as an embedded written call option at fair value through profit and loss.

Fair value on inception of the Loan Agreement is included as part of the transaction costs. The call option is measured at fair value at level 2 in the fair value hierarchy.

The written call option is measured at fair value using a Black-Scholes option valuation model. In measuring the fair value, various observable and unobservable inputs are required. Observable input mainly relates to the market price of Orphazyme's shares, and risk-free interest rate. Unobservable inputs mainly relate

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to the expected volatility of Orphazyme's share price and the term. The table below shows the inputs used in the valuation of the call option and the estimated fair value at the date of the Loan Agreement and on December 31, 2019.

CALL OPTION ON FACILITATION FEE	Dec 2019	Sep 2019
Fair value of call option	1,595	1,242
Dividend yield (%)	—	—
Expected volatility (%)	57%	53.3%
Risk-free interest rate (%)	(0.63%)	(0.58%)
Expected life (years)	3.2	3.5
Share price (DKK)	72.4	(63.5)

The change in fair value of the call option is recognized as a finance expense in the statement of profit or loss. During the year ended December 31, 2019, the company recognized a loss of DKK 0.4 million.

The structured debt facility included a potential second tranche available to Orphazyme, however as of December 31, 2019 conditions allowing for the drawdown of the second tranche were not met and it expired unused. In connection with the drawdown of Tranche 1, Orphazyme incurred transaction costs in the amount of €0.5 million (DKK 3.4 million). As the transaction costs secured a potential financing of two tranches, half of the transaction costs, or €0.2 million (DKK 1.7 million) are being amortized with the first tranche and upon expiration of the second tranche, the other half of the transaction costs were written off as finance expense in the statement of profit or loss (Note 2.6).

As part of the closing of the Loan Agreement, Orphazyme made a payment in the amount of €0.4 million (DKK 2.5 million) as a deposit for the last cash payment to be made on the borrowing ("Advance Payment").

The total liability for the Loan Agreement is being amortized net of the transaction costs, the Facilitation Fee and the call option; and it is being presented net of the Advance Payment.

The Group's financial liabilities comprise the following as of the years ended December 31:

DKK 000	2019	2018
Borrowings	62,824	—
Lease liabilities (Note 3.2)	12,689	—
Trade payables	1,093	18,090
Accruals	31,297	24,093
Total liabilities measured at amortized cost	107,903	42,183

As of the year ended December 31, 2019, Accruals includes an amount of DKK 13.3 million (2018: DKK 13.4 million) for clinical trial costs.

Maturities of financial liabilities

The table below presents the Group's financial liabilities by relevant maturity groupings based on their contractual maturities for all non-derivative financial liabilities and derivative financial instruments for which the contractual maturities are essential for an understanding of the timing of the cash flows.

As the Facilitation Fee is due upon demand, it is shown as current Borrowings under non-derivatives. The call option on the Facilitation Fee is shown as current under derivatives.

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The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

DKK 000	Less than 6 months	6-12 months	Between 1 and 2 years	Between 2 and 5 years	Total contractual cash flows	Carrying amount
Non-derivatives						
Trade payables and accruals	32,390	—	—	—	32,390	32,390
Borrowings	9,997	11,147	30,165	34,695	86,004	62,824
Lease liabilities	1,672	1,672	3,344	7,405	14,093	12,689
Total non-derivatives	44,058	12,819	33,509	42,100	132,486	107,903
Derivatives (Borrowings)	1,595				1,595	1,595
Total derivatives	1,595				1,595	1,595

Total current other liabilities is comprised as follows as of the years ended December 31:

DKK 000	2019	2018
Deferred grant income	95	299
Remuneration to the Board of Directors	1,535	1,836
Lease liability	2,876	—
Payroll and employee-related costs	16,277	8,677
Total current other liabilities	20,785	10,812

Certain amounts included in prior year trade payables and accruals and other liabilities have been reclassified for consistency with current year presentation.

In addition, the Group has the following total other non-current liabilities as of the years ended December 31:

DKK 000	2019	2018
Accrual for milestone payment to vendor	65	66
Phantom shares liability to employees	313	39
Total non-current other liabilities	378	105

3.6 CASH

§ ACCOUNTING POLICIES

Cash includes cash on hand and in banks. Please see Financial Risks discussed in Note 4.4.

Statement of cash flows

The statement of cash flows is presented using the indirect method and shows cash flows resulting from operating activities, investing activities, financing activities, and the Group's cash at the beginning and end of the year, including any effects of exchange rate changes.

Cash flows used in operating activities converts items in the Statement of Profit or Loss from the accrual basis of accounting to the cash basis of accounting. Non-cash items such as foreign exchange gains and losses, depreciation, amortization, and changes in working capital are reversed from the net loss for the year and actual cash receipts and payments are included.

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Cash flows from investing activities shows payments related primarily to the purchase of licenses and property, plant, and equipment.

Cash flows from financing activities shows proceeds from share issuance, borrowings, net of transaction costs, and lease payments.

The Group's cash balance denominated in foreign currencies were as follows as of the years ended December 31:

DKK 000	2019	2018
DKK	89,155	392,196
EUR	20,083	596
USD	14,309	1,886
GBP	41	28
Total cash	123,588	394,706

3.7 COMMITMENTS AND CONTINGENCIES

As disclosed in Note 3.1, under the terms of the Asset Purchase Agreement with CytRx, the Company agreed to make future payments to CytRx that were contingent upon the achievement of specified clinical, regulatory, and sales milestones. The Company has agreed to pay CytRx clinical and regulatory milestone payments for the first two product candidates being developed or labeled for indications other than for the treatment or prevention of ALS or stroke (non-ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. In 2016, the Company paid CytRx USD 0.1 million for achievement of a clinical milestone for the first product candidate. The maximum aggregate amount of milestone payments that may be triggered is USD 12.1 million for the first non-ALS or stroke product and USD 10.3 million for the second non-ALS or stroke product developed assuming (for both products) approval in the European Union (or certain major European markets), United States and Japan. A second non-ALS or stroke product is not considered a second product (and does not trigger milestone payments) unless it contains a different compound than the first non-ALS or stroke product.

The Company has also agreed to pay CytRx clinical and regulatory milestone payments (payable one time only) for each product candidate developed that is being developed or labelled for the treatment or prevention of ALS or stroke (ALS or stroke products). Payments are triggered upon achieving certain key clinical or regulatory milestones. In August 2018, the Company made a milestone payment of USD 250,000 (DKK 1.6 million) upon the enrollment of the first patient in the ALS Phase 3 clinical trial. The maximum aggregate amount of milestone payments that may be triggered per ALS or stroke product is USD 23.8 million assuming approval in the European Union (or certain major European markets), the United States and Japan. The milestone obligations are payable only once per ALS or stroke product. A subsequent ALS or stroke product may achieve an additional maximum aggregate amount of USD 23.8 million in milestone payments, only if it contains a different compound than an ALS or stroke product previously achieving same milestone but is for a different indication.

The Asset Purchase Agreement further includes sales milestones and royalty payments to be made by the Company based on a specified percentage of any eventual net sales of products containing one of the compounds purchased. In addition, under the terms of the Asset Purchase Agreement, the Company was assigned and became party to a royalty agreement with ALS Charitable Remainder Trust pursuant to which the Company is obliged to pay a 1% royalty to the ALS Charitable Remainder Trust on worldwide net sales of arimoclomol for the treatment of ALS.

The first sales milestone is triggered on aggregated annual global net sales exceeding USD 100 million. The aggregate milestone payment obligation may be up to USD 50 million assuming aggregated annual global

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net sales in excess of USD 1 billion. The Company has agreed to pay CytRx a low teens double-digit royalty on net sales of all products developed by the Company, its affiliates or licensees which are labeled or prescribed for the treatment or prevention of ALS or stroke and a mid-single digit royalty on net sales of all other products developed by the Company or its affiliates or licensees containing any of the compounds purchased from CytRx. Royalties accrue on a country-by-country and product-by-product basis until the latest of expiration of relevant patent claims in the country covering such product, expiry of regulatory exclusivity in the country for such product or ten years from the date of the approval of the product in the country. The royalty rates are subject to reductions for patent expiration, lack of regulatory exclusivity, third party payments and generic competition.

The Group has entered into an operating lease for its headquarters location in Denmark. The lease component portion is accounted for under IFRS 16 (see Note 3.2) and the non-lease component portion, which consists of basic services and maintenance, has a non-cancellable lease term of six months. At December 31, 2019, the non-lease component established a contractual commitment of DKK 0.5 million (2018: DKK 1.3 million).

In addition, the Group has contractual obligations related to contracts with CROs and other vendors for research and development activities that have been initiated and are non-cancelable as of December 31, 2019. These establish contractual commitments of approximately DKK 178 million (2018: DKK 178 million).

In connection with a loan agreement in the amount up to €18.0 million entered into on August 27, 2019 with Kreos Capital VI (UK) Ltd., the Company has granted security in favor of Kreos Capital VI (UK) Ltd. over (i) certain of its assets, including its intellectual property rights, pursuant to a floating charge agreement registered with the Danish personal register in the initial principal amount of €9.0 million, (ii) its patents registered in Germany, the UK and the US pursuant to a patent pledge agreement and (iii) its shares in its US subsidiary, Orphazyme US, Inc. Furthermore, Orphazyme US, Inc. has granted in favor of Kreos Capital VI (UK) Ltd. (i) a guarantee for the Company's obligations under the loan agreement pursuant to a guaranty agreement and (ii) security over certain of its assets, including its intellectual property rights, pursuant to a security agreement governed under US law.

The U.S. FDA has granted Orphazyme a rare pediatric disease designation to arimoclomol as a treatment for Niemann-Pick disease Type C (NPC). Under the FDA's rare pediatric disease priority review voucher program, upon the approval of a new drug application for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a rare pediatric disease priority review voucher that can be used to obtain priority review for a subsequent new drug application. However, receiving a rare pediatric disease designation for arimoclomol as a treatment for NPC does not automatically mean that the Company will receive a priority review voucher as priority review voucher is only awarded following approval by the FDA of arimoclomol as a treatment for NPC. If a priority review voucher is granted, the Company may use the voucher for its own FDA approval processes or decide to sell the voucher to other biotech or pharmaceutical companies. There is no established market for priority review vouchers and disclosed sales prices may not be indicative of the current value of vouchers, which may also fluctuate significantly. Congress has only authorized the Rare Pediatric Disease Priority Review Voucher program until September 30, 2020. However, if a drug candidate receives Rare Pediatric Disease Designation before October 1, 2020, it is eligible to receive a voucher if it is approved before October 1, 2022. Hence, it may be unavailable to the Company even if it meets all of the requirements. Further, the potential award of a voucher would trigger an obligation to market the relevant rare pediatric disease product within one year from FDA approval or the FDA may revoke the voucher. Finally, a voucher award subjects the Company to post marketing reporting obligations to the FDA.

SECTION 4 Other disclosures

4.1 CAPITAL MANAGEMENT

For the purpose of the Group's capital management, capital includes issued capital, share premium and all other equity reserves attributable to the equity holders of the Group. The primary objective of the Group's capital management is to maximize shareholder value while limiting the financial risk. The Board of Directors' policy is to maintain a strong capital base in order to maintain investor, creditor and market confidence, and a continuous advancement of the Group's intellectual property, product pipeline, and business.

Cash and financial assets are monitored on a regular basis by Management and the Board of Directors in assessing current and long-term capital needs. As of December 31, 2019, the Group held cash totaling DKK 123.6 million (2018: DKK 394.7 million) and that will not be sufficient to provide adequate funding to allow the Group to meet its planned operating activities. Before year-end Management commenced measures to secure adequate funding. On February 7, 2020 Orphazyme completed an offering of 7,032,937 shares in a directed issue and private placement and raised approximately DKK 745 million in gross proceeds (see Note 4.7). The transaction is expected to cover Orphazyme's financing needs well into 2021.

4.2 EQUITY

The following table summarizes the Company's share activity:

	<u>Ordinary shares</u>
December 31, 2017	19,928,184
Issuance of bonus shares as part of license agreement (Note 3.1)	11,380
December 31, 2018	19,939,564
Issuance of bonus shares as part of license agreement	26,060
Issuance of Matching Shares (Note 2.5)	19,175
December 31, 2019	19,984,799

The Company has never declared or paid any cash dividends on its ordinary shares and does not anticipate doing so in the foreseeable future. The Company intends to use all available financial resources as well as revenue, if any, for purposes of the Company's current and future business.

In January 2018, the Company issued 11,380 bonus shares ("2018 Bonus Shares") using free reserves of the Company to KU Center for Technology Commercialization Inc., University of Kansas, Kansas Life Sciences Development Company, Inc. ("KLSDC"), and UCL Business PLC ("UCL") under the terms of the license agreement entered into in October 2017 (Note 3.1).

In January 2019, the Company issued 26,060 bonus shares ("2019 Bonus Shares") to KLSDC and UCL under the terms of the same license agreement mentioned above.

In March 2019, the Company issued 19,175 Matching Shares to participants in the 2017 LTIP (see Note 2.5)

Following this share capital increase, the total nominal share capital of the Company as of December 31, 2019 was DKK 19,984,779, divided into 19,984,779 ordinary shares, respectively, each with a nominal value of DKK 1.

4.3 LOSS PER SHARE

Basic loss per share for the year is calculated by dividing the net loss for the year by the weighted average number of ordinary shares outstanding during the year. The diluted loss per share is calculated by dividing the net loss for the year by the weighted average number of ordinary shares outstanding during the period increased by the dilutive effect of the assumed issuance of outstanding share-based awards. As a result of the Group incurring losses for each of the years ended December 31, 2019 and 2018, the potential shares issuable related to outstanding share-based awards have been excluded from the calculation of diluted per share amounts, as the effect of such shares is anti-dilutive.

In January 2019 and in January 2020, the Company issued 26,060 bonus shares (“2019 Bonus Shares”) and 20,650 bonus shares (“2020 Bonus Shares”) respectively to KLSDC and UCL under the terms of the license agreement entered into in October 2017 with the parties (Note 3.1).

Basic and diluted loss per share for the years presented have been adjusted retrospectively to include the 2019 Bonus Shares and the 2020 Bonus Shares in the number of weighted average shares outstanding for the years ended December 31, 2019 and 2018. This results in the comparative figure for 2018 being updated accordingly.

The following reflects the net loss attributable to shareholders and share data used in the basic and diluted earnings/(loss) per share computations for the years ended December 31:

	<u>2019</u>	<u>2018</u>
Net loss for the year (DKK 000)	(337,497)	(229,600)
Weighted-average shares outstanding	20,002,139	19,986,274
Loss per share	(16.87)	(11.49)

4.4 FINANCIAL RISKS

The Group’s activities expose it to a number of financial risks whereby future events, which can be outside the control of the Group, could have a material effect on its financial position and results of operations. The known risks include foreign currency, interest and credit risk and there could be other risks currently unknown to Management. The Group has not historically hedged its financial risks.

Liquidity Risk

At December 31, 2019, the Group’s liquidity risk was assessed to be high. Management continuously assesses the Group’s capital structure in order to evaluate whether its liquidity reserves allow it to achieve its business objectives. At December 31, 2019, the available liquidity reserves were assessed not to be sufficient to allow it to achieve its business objectives. Before year-end Management commenced measures to secure adequate funding. On February 7, 2020 Orphazyme completed an offering of 7,032,937 shares in a directed issue and private placement and raised approximately DKK 745 million in gross proceeds and DKK 694 million in net proceeds (see Note 4.7).

Foreign Currency Risk

The Group’s foreign currency risk is assessed to be high. The Group’s functional currency is the DKK and it conducts cross border transactions where the functional currency is not always used. Accordingly, future changes in the exchange rates of the DKK against the EUR, the USD and/or the GBP will expose the Group to currency gains or losses that will impact the reported amounts of assets, liabilities, income and expenses and the impact could be material.

Interest Rate Risk

The Group's interest rate risk is assessed to be low. The Group has a borrowing on which it incurs a fixed rate of interest (see Note 3.5). In addition, due to the current interest level in Denmark, the Group incurs negative interest on bank deposits.

Credit Risk

The Group's credit risk is assessed to be low. The Group's credit risk is associated with cash held in banks. The Company does not trade financial assets for speculative purposes and invests with the objective of preserving capital. The Company's cash is held primarily at two banks in Denmark with Moody's long-term credit ratings exceeding of A1.

The Group has prepared a sensitivity analysis in order to assess the potential impact on the Group's net loss for possible fluctuations in the EUR and USD exchange rates against the DKK and the impact for the possible fluctuations in the interest rate on bank deposits in Denmark and in the USA. The methods and assumptions used are consistent with prior year and consider increases and decreases in the Group's three main currencies, as well as reasonable fluctuations in the interest rate on its bank deposits. Based on these analyses, if interest rates on our cash deposits would have fluctuated by +/- 1%, the impact on the Group's net loss for the year ended December 31, 2019 would have been approximately DKK 8 thousand (2018: DKK 20 thousand). The impact of currency fluctuations on the Group's net loss is shown in the table below:

Currency	Currency fluctuation	Effect 2019 TDKK	Effect 2018 TDKK
EUR	+/-2%	503	713
USD	+/-10%	21	1,278
GBP	+/-10%	461	218

4.5 RELATED PARTIES

Orphazyme A/S, incorporated in Denmark, is the ultimate parent company of the Group, which wholly owns Orphazyme US, Inc. These two entities are considered related parties. Orphazyme A/S is not ultimately controlled by any of its investors. Major investors owning more than 10% of the Company are considered related parties.

In July 2019, Orphazyme announced that the Board of Directors appointed Kim Stratton as the new Chief Executive Officer of Orphazyme, succeeding Anders Hinsby. Kim started her position on October 1, 2019.

For the years ended December 31, 2019 and 2018, the following related party transactions were identified:

- Remuneration to Executive Management (Note 2.4)
- Remuneration to the Board of Directors (Note 2.4)
- Participation of Executive Management in the 2017 LTIP and the 2019 LTIP (Note 2.5)
- Participation of the Board members in the RSU, program (Note 2.5)

As of December 31, 2019 and 2018, the Company did not have any amounts receivable from related parties and therefore has not recorded any impairment. The Company has not granted any loans, guarantees, or other commitments to or on behalf of any of the members of the Board of Directors or Executive Management.

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During 2019 the board members have been granted RSUs, as disclosed in Note 2.5.

Executive Management and members of the Board of Directors had the following shareholding in Orphazyme A/S for the years ended December 31:

	Number of shares owned 2019	Number of shares owned 2018	Investment shares (LTIP) 2019	Investment shares (LTIP) 2018
Kim Stratton	—	—	—	—
Anders Hinsby	209,596	204,596	—	5,000
Anders Vadsholt	132,595	127,806	6,250	4,000

	Number of shares 2019	Number of shares 2018	Number of RSUs 2019
MEMBERS OF THE BOARD OF DIRECTORS:			
Georges Gemayel	97,358	87,758	3,451
Bo Jesper Hansen	100,545	79,945	2,689
Martijn Kleijwegt	—	—	1,927
Martin Bonde	46,009	46,009	1,927
Rémi Droller	—	—	1,927
Sten Verland	—	—	1,927
Anders Hedegaard	13,750	6,250	1,927
Catherine Moukheibir	7,980	7,980	1,927

4.6 FEES TO STATUTORY AUDITORS

The following table presents the fees to our statutory auditors, EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S), recognized in general and administrative expenses in the Statement of Profit or Loss for the years ended December 31:

DKK 000	2019	2018
Audit services	2,244	320
Audit-related services	882	156
Other assistance	—	50
Total fees to statutory auditors	3,126	526

4.7 SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

In January 2020, Orphazyme established a wholly-owned subsidiary in Zug, Switzerland to facilitate the global launch of the Group's products once regulatory approval has been obtained.

As described in Note 3.1, as part of the license agreement with KLSDC and UCL, consideration to KLSDC and UCL is payable in shares of the Company ("Bonus Shares") each January and is based on incurred costs reported by KLSDC and UCL for the previous year. As at December 31, 2019 the aggregate costs incurred by KLSDC and UCL amounted to USD 0.3 million (DKK 2.2 million), and a total of 20,650 Bonus Shares ("2020 Bonus Shares") were issued to KLSDC and UCL in January 2020, based on the average 30-day closing price of Orphazyme's shares. At the time of the share issuance the equity reserve was decreased by DKK 2.1 million, which represents the market value of the shares issued.

On February 7, 2020 Orphazyme completed an offering of 7,032,937 shares in a directed issue and private placement and raised gross proceeds of approximately DKK 745 million and net proceeds of approximately DKK 694 million. The net proceeds of the directed issue and private placement is expected to

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cover the Company's financing needs until well into 2021, and support in particular the imminent US and European filings for approval of arimoclomol for the treatment of Niemann-Pick disease Type C (NPC), as well as the preparations for commercial launch.

The transaction consisted of a directed issue and private placement of up to 3,961,264 new shares of a nominal value of DKK 1 each (the "New Shares") and private placement of up to 3,071,673 existing shares of a nominal value of DKK 1 each (the "Existing Shares" and together with the New Shares, the "Offer Shares") at an offer price of DKK 106 per Offer Share, as determined by the Board of Directors of the Company through a book-building process (the "Offering"). The New Shares will be issued without pre-emption rights for existing shareholders.

The offering of Existing Shares is facilitated by a share loan from Novo Holdings A/S and Orpha Pooling B.V. (the "Lending Shareholders") to the Company pursuant to a stock lending and subscription agreement with an obligation for the Company to redeliver new shares of an equivalent number as the Existing Shares borrowed by the Company from each of the Lending Shareholders (the "Replacement Shares"), which will be issued without pre-emption rights for existing shareholders. The Lending Shareholders do not participate in the Offering and are only facilitating the loan of the Lending Shares for purposes of the Company's offering of Existing Shares in the Offering.

After settlement of the capital increases, the share capital of the Company consists of 27,038,386 shares with a nominal value of DKK 1 each.

In December 2019, a novel strain of coronavirus, SARS-CoV-2, causing a disease referred to as COVID-19, was reported to have surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple countries worldwide, including to various jurisdictions where our clinical trials are carried out. In March 2020, subsequent to the balance sheet date, the World Health Organization declared the COVID-19 outbreak a pandemic. In multiple countries there have been closure of all non-essential businesses, imposed social distancing measures, "shelter-in-place" orders and restrictions on travel between countries. In response to the spread of COVID-19, we closed our executive offices in Denmark and the United States and implemented optional work-from-home policies.

Clinical study activities such as clinical site initiation, patient enrollment and activities that require visits to clinical sites, including data monitoring, have been and may continue to be delayed due to prioritization of hospital resources toward the COVID-19 pandemic or concerns among patients about participating in clinical trials during a pandemic.

At this time, there is no impact on the Company's consolidated financial statements, including the judgements and estimates applied. The company's clinical studies are continuing, however with expected increased total costs for the clinical studies as a result of delays arising from the implications of COVID-19. Any impact that this may have on the Company's financial performance and financial position, is being monitored closely by management.

**UNAUDITED INTERIM CONDENSED CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE
INCOME**

	Six months ended Jun 30, 2020 DKK (000)	Six months ended Jun 30, 2019 DKK (000)
Research and development expenses (Note 3)	(166,980)	(141,710)
General and administrative expenses (Note 4)	(78,575)	(23,345)
Operating loss	(245,555)	(165,055)
Financial income	126	152
Financial expenses	(7,967)	(1,500)
Loss before tax	(253,396)	(166,403)
Income tax benefit	1,981	2,495
Net loss for the period	(251,415)	(163,908)
Exchange differences from translation of foreign operations	(135)	(19)
Total comprehensive loss	(251,550)	(163,927)
Loss per share, basic and diluted (Note 8)	(9.88)	(8.20)

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

UNAUDITED INTERIM CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

	Jun 30, 2020 DKK (000)	Dec 31, 2019 DKK (000)
ASSETS		
Non-current assets		
Intangible assets	10,773	10,539
Right-of-use assets	15,542	13,903
Property, plant, and equipment	4,247	3,685
Corporation tax receivable	5,500	2,750
Prepayments and deposits	2,108	1,652
Total non-current assets	38,170	32,529
Current assets		
Corporation tax receivable	—	5,500
Prepayments and other receivables	27,742	19,137
Cash	610,448	123,588
Total current assets	638,190	148,225
TOTAL ASSETS	676,360	180,754
EQUITY & LIABILITIES		
Equity		
Share capital	27,045	19,984
Share premium	1,611,630	924,021
Other reserves	5,753	7,982
Accumulated deficit	(1,138,293)	(899,018)
Total equity	506,135	52,969
Non-current liabilities		
Borrowings	36,827	51,606
Lease liabilities	10,976	9,813
Other non-current liabilities	616	378
Total non-current liabilities	48,419	61,797
Current liabilities		
Current borrowings	29,954	12,813
Lease liabilities	3,183	2,876
Trade payable and accruals	58,769	32,390
Tax payable	665	—
Other liabilities	29,235	17,909
Total current liabilities	121,806	65,988
TOTAL EQUITY AND LIABILITIES	676,360	180,754

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

UNAUDITED INTERIM CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Other reserves					Total DKK (000)
	Share capital DKK (000)	Share premium DKK (000)	Foreign currency translation reserve DKK (000)	Share-based compensation – acquisition of intangible assets DKK (000)	Accumulated deficit DKK (000)	
Balance as of December 31, 2018	19,939	924,021	42	9,070	(564,823)	388,249
Net loss for the period	—	—	—	—	(163,908)	(163,908)
Other comprehensive loss for the period	—	—	(19)	—	—	(19)
<i>Total other comprehensive loss</i>	—	—	(19)	—	(163,908)	(163,927)
<i>Transactions with owners</i>						
Capital increase, Bonus Shares	26	—	—	(1,197)	1,171	—
Capital increase, LTIP Matching Shares	19	—	—	—	—	19
Share-based payment costs	—	—	—	—	483	483
<i>Total transactions with owners</i>	<i>45</i>	<i>—</i>	<i>—</i>	<i>(1,197)</i>	<i>1,654</i>	<i>502</i>
Balance as of June 30, 2019	19,984	924,021	23	7,873	(727,077)	224,824

	Other reserves					Total DKK (000)
	Share capital DKK (000)	Share premium DKK (000)	Foreign currency translation reserve DKK (000)	Share-based compensation – acquisition of intangible assets DKK (000)	Accumulated deficit DKK (000)	
Balance as of December 31, 2019	19,984	924,021	109	7,873	(899,018)	52,969
Net loss for the period	—	—	—	—	(251,415)	(251,415)
Other comprehensive loss for the period	—	—	(135)	—	—	(135)
<i>Total other comprehensive loss</i>	<i>—</i>	<i>—</i>	<i>(135)</i>	<i>—</i>	<i>(251,415)</i>	<i>(251,550)</i>
<i>Transactions with owners</i>						
Capital increase, Bonus Shares (Note 7)	21	—	—	(2,094)	2,073	—
Capital increase, exercise of RSUs (Note 7)	7	394	—	—	—	401
Capital increase, private placement (Note 7)	7,033	738,458	—	—	—	745,491
Transaction costs (Note 7)	—	(51,243)	—	—	—	(51,243)
Share-based payment costs (Note 5)	—	—	—	—	10,067	10,067
<i>Total transactions with owners</i>	<i>7,061</i>	<i>687,609</i>	<i>—</i>	<i>(2,094)</i>	<i>12,140</i>	<i>704,716</i>
Balance as of June 30, 2020	27,045	1,611,630	(26)	5,779	(1,138,293)	506,135

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

UNAUDITED INTERIM CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOW

	Six months ended Jun 30, 2020 DKK (000)	Six months ended Jun 30, 2019 DKK (000)
Operating activities		
Operating loss	(245,555)	(165,055)
<i>Adjustments to reconcile loss before tax to cash flows from operating activities:</i>		
Equity-settled share-based payment expense (Note 5)	10,067	483
Depreciation and amortization	2,250	2,066
Change in prepayments, deposits and other receivables	(9,061)	8,197
Change in trade payables, accruals and other liabilities	37,400	(11,384)
Corporate taxes received / (paid)	5,500	(255)
Interest paid	(4,770)	(649)
Net cash used in operating activities	(204,169)	(166,597)
Investing activities		
Purchase of intangible assets	(590)	(112)
Purchase of property, plant, and equipment	(1,170)	(1,113)
Net cash used in investing activities	(1,760)	(1,225)
Financing activities		
Proceeds from issuance of shares (Note 7)	745,892	19
Transaction costs	(51,243)	—
Repayment of lease obligations	(1,705)	(1,080)
Net cash provided by (used in) financing activities	692,944	(1,061)
Net change in cash and cash equivalents	487,015	(168,883)
Cash balance at beginning of period	123,588	394,706
Effect of changes in exchange rates on cash	(155)	(263)
Cash balance at end of period	610,448	225,560

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

NOTES TO THE UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Corporate Information

Orphazyme A/S (the “Company”) is a late-stage biopharmaceutical company harnessing the amplification of Heat Shock Proteins, or HSPs, in order to develop and commercialize novel therapeutics for the treatment of neurodegenerative orphan diseases. The Company is a limited liability company publicly traded on Nasdaq Copenhagen with headquarters in Copenhagen, Denmark. In April 2018, a wholly-owned subsidiary, Orphazyme U.S., Inc., was incorporated in Delaware, USA and in March 2020, a wholly-owned subsidiary, Orphazyme Schweiz GmbH, was incorporated in Zug, Switzerland (together with Orphazyme A/S and Orphazyme U.S., Inc., “Orphazyme” or “the Group”). By establishing local subsidiaries, the Company aims to directly support the U.S. and European markets and establish closer relationships with the medical, patient, and financial communities as Orphazyme expands its development programs and global reach.

Note 2—Basis of Preparation and Updates to the Group’s Accounting Policies

Basis of Preparation

The interim condensed consolidated financial statements for the six months ended June 30, 2020 have been prepared in accordance with IAS 34 *Interim Financial Reporting* as issued by the International Accounting Standards Board (IASB).

The interim condensed consolidated financial statements do not include all the information and disclosures required in annual financial statements and should be read in conjunction with Orphazyme A/S’ latest consolidated annual financial statements as of December 31, 2019. In the presentation of the Unaudited Condensed Consolidated Statement of Financial Position, current lease liabilities are presented in a separate line item in each period presented; whereas, in the annual financial statements the amount of current Lease Liabilities for the year ended December 31, 2019 was included under current Other Liabilities. This change in presentation does not affect the total current liabilities presented.

Evaluation of Going Concern Basis

The Company periodically monitors its funding position in order to identify risks relating to future liquidity needs and to ensure that it has access to sufficient funds to continue its activities as planned or alternatively take corrective actions to allow the Company to continue as a going concern. Management continuously evaluates various funding options for the Company, public or private debt or equity financings and believes it is probable that new funding will be obtained to enable the Company to continue its activities associated with the ongoing clinical trials and the escalation of activities to prepare for commercial launch as planned. If, contrary to management’s expectations, the Company is not successful in getting access to new funding, the Company may down-size or delay planned activities to allow the Company to fund operations to at least June 30, 2021. Based on these factors, management considers it appropriate to prepare these financial statements on a going concern basis.

COVID-19

At this time, there is no material impact on the Company’s consolidated financial statements, including the judgements and estimates applied. Our business, operations and clinical development plans could be adversely impacted by the effects of COVID-19. Our clinical studies are continuing, however with expected increased total costs for the clinical studies arising from the implications of COVID-19. The COVID-19 pandemic may also have an effect on other aspects of our business, including: our third-party manufacturers, CROs and other third parties; the productivity of our staff; ability to attract, integrate, manage and retain qualified personnel or key employees; our global supply chains and relationships with vendors and other parties;

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significant disruption of global financial markets; and reduced ability to secure additional funding. We will continue to monitor the COVID-19 pandemic and its potential impact on our business and financials.

Updates to the Group's Accounting Policies

The accounting policies used in the preparation of the interim condensed consolidated financial statements are consistent with those used in the preparation of Orphazyme A/S' annual consolidated financial statements for the year ended December 31, 2019. A number of new or amended standards became applicable for the current reporting period; however, these did not have an impact on the interim condensed consolidated financial statements of the Group.

Note 3—Research and Development Expenses

Research and development expenses of DKK 167 million (June 30, 2019: DKK 141.7 million) include employee costs for research and development personnel (i.e. salaries, bonuses, employer contributions to pension schemes, share-based compensation) and external costs for further development of our pipeline, including ongoing clinical trials and clinical pharmacology registration trials.

Note 4—General and Administrative Expenses

General and administrative expenses include pre-launch costs of DKK 44.1 million (June 30, 2019: DKK 3.7 million) associated with establishing a commercial organization and the escalation of launch preparation activities, including hiring a commercial team in our subsidiaries in the U.S. and Switzerland and medical affairs activities to further engage with the scientific community through communication and education programs. Furthermore, included in general and administrative expenses is DKK 34.5 million (June 30, 2019: DKK 19.6 million) mainly due to salaries for administrative employees and executive management, remuneration to the Board of Directors, share-based compensation costs, audit fees, legal costs and investor relations costs.

Note 5—Share-Based Compensation Costs

Please refer to Note 2.5 of the Group's consolidated financial statements included in the 2019 Annual Report for a description of the share-based compensation programs and the accounting policies and estimates applied. The activities in the respective programs are outlined below:

a) Long-Term Incentive Programs (Equity-Settled)

2020 Long-term incentive program granted after the balance sheet date:

Similar to the 2017 LTIP and 2019 LTIP described in Note 2.5 of the consolidated financial statements for the year ended December 31, 2019, the 2020 LTIP offers the Executive Management as well as certain key employees of Orphazyme who have subscribed for a certain number of Investment Shares, an equal number of Matching Shares and a certain number of Performance Shares depending on the development of the Company's share price. Although the grant date of these awards is subsequent to the balance sheet date, management has determined that the service commencement date of the participants was during the period January 1 and June 30, 2020 and consequently compensation expense is recognized from the respective service commencement date of the participants. An estimate of the fair value of the awards was made at the balance sheet date for the purpose of recognizing the services received from the service commencement date through June 30, 2020. Once the grant date is established for all the awards, the estimate of the fair value as of June 30, 2020 will be revised so that the amounts recognized for services received in respect of the grant of awards are ultimately based on the grant date fair value of the equity instruments awarded.

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The provisional fair value of the 2020 LTIP awards was estimated using a Monte-Carlo simulation model at the balance sheet date. The following inputs were used in the simulation:

	June 30, 2020
Dividend yield (%)	—
Expected volatility (%)	55.9%
Risk-free interest rate (%)	(0.56%)
Expected life (years)	3.5
Share price (DKK)	<u>89.30</u>
Provisional fair value at measurement date (DKK 000)	<u>38,556</u>

The risk-free interest rate has been estimated based on Danish government bonds with similar maturities. Expected volatility has been determined based on the historic volatility of comparable listed companies. Based on the provisional fair value of the 2020 LTIP, an expense of DKK 8.2 million was recognized for the six-month period ending June 30, 2020. In addition, an aggregate expense of DKK 1.9 million for the 2017 LTIP and the 2019 LTIP was recognized for the six-month period ending June 30, 2020 compared to DKK 0.5 million recognized for the six-month period ended June 30, 2019.

In July 2020, the Matching Shares from the 2019 LTIP fully vested and were issued to the participants in exchange for the nominal value of DKK 1 per share. This resulted in cash received of DKK 31,250 and a capital increase of the same number of shares.

b) Phantom Share-Based Incentive Programs (Cash-Settled)

As described in Note 2.5 of the consolidated financial statements for the year ended December 31, 2019, the Phantom programs are cash-settled and their fair value is re-assessed at each reporting date. Management used a Monte-Carlo simulation model with the following inputs to estimate the fair value as of June 30, 2020:

Program	June 30, 2020	June 30, 2020	June 30, 2020
	2019-1	2018-2	2018-1
Dividend yield (%)	—	—	—
Expected volatility (%)	56%	58.5%	58.5%
Risk-free interest rate (%)	(0.55%)	(0.56%)	(0.56%)
Expected life (years)	3.64	2.58	2.58
Share price (DKK)	<u>89.30</u>	<u>89.30</u>	<u>89.30</u>
Fair value at measurement date (DKK 000)	<u>437</u>	<u>72</u>	<u>215</u>
	Dec 31, 2019	Dec 31, 2019	Dec 31, 2019
Program	2019-1	2018-2	2018-1
Dividend yield (%)	—	—	—
Expected volatility (%)	57.4%	57%	57%
Risk-free interest rate (%)	(0.50%)	(0.63%)	(0.63%)
Expected life (years)	4	3.08	3.08
Share price (DKK)	<u>72.40</u>	<u>72.40</u>	<u>72.40</u>
Fair value at measurement date (DKK 000)	<u>347</u>	<u>53</u>	<u>152</u>

The risk-free interest rate has been estimated based on Danish government bonds with similar maturities. Expected volatility has been determined based on the historic volatility of comparable listed companies. Based on the fair value of the awards on June 30, 2020, an expense of DKK 0.2 million was

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recognized for the six-month period ended June 30, 2020 compared to DKK 0.1 million recognized for the six-month period ended June 30, 2019.

c) Restricted Share Units (Cash-Settled)

In March 2020, the 2019 RSUs granted to the board of directors in 2019 fully vested. During April, three board members exercised their RSUs, one exercised in July, subsequent to the reporting date, and the remaining participants have not exercised. See Note 7 for a description of the share issuances. The remaining RSUs expire in March 2021 if not exercised or paid out in cash.

Also in March 2020, the 2020 RSU program was announced, granting the board of directors an aggregate of 15,177 RSUs under similar terms and conditions as the 2019 RSUs described in Note 2.5 of the consolidated financial statements for the year ended December 31, 2019. Management used a Black-Scholes model with the following inputs to estimate the fair value of the 2020 RSUs as of June 30, 2020:

	June 30, 2020
Dividend yield (%)	—
Expected volatility (%)	55.3%
Risk-free interest rate (%)	(0.48%)
Expected life (years)	1
Share price (DKK)	<u>89.30</u>
Fair value at measurement date (DKK 000)	<u>420</u>

The risk-free interest rate has been estimated based on Danish government bonds with similar maturities. Expected volatility has been determined based on the historic volatility of comparable listed companies. Based on the fair value of the 2020 RSUs on June 30, 2020, an expense of DKK 0.1 million was recognized for the six-month period ended June 30, 2020. In addition, an amount of DKK 0.1 million was recognized for the 2019 RSUs during the same period. For the six-month period ended June 30, 2019 there was no expense recognized for the 2019 RSUs, as they were only granted in July 2019.

d) Bonus Shares

As part of the license agreement with KLSDC and UCL described in Note 3.1 of the consolidated financial statements for the year ended December 31, 2019, consideration to KLSDC and UCL is payable in shares of the Company (“Bonus Shares”) each January and is based on incurred costs reported by KLSDC and UCL for the previous year. As at December 31, 2019 the aggregate costs incurred by KLSDC and UCL amounted to USD 0.3 million (DKK 2.2 million), and a total of 20,650 Bonus Shares (“2020 Bonus Shares”) were issued to KLSDC and UCL in January 2020, based on the average 30-day closing price of Orphazyme’s shares. At the time of the share issuance the equity reserve was decreased by DKK 2.1 million, which represents the market value of the shares issued.

Note 6—Financial Liabilities

As disclosed in Note 3.5 of the consolidated financial statements for the year ended December 31, 2019, the structured debt facility with Kreos (“Loan Agreement”) entered into in August 2019 includes a Facilitation Fee that is due and payable by Orphazyme at the sole discretion of the lender. The Facilitation Fee is an amount equal to the greater of (i) 10% of the aggregate amount of the amount borrowed and (ii) the percentage increase in the Company’s share price between the 30-day volume-weighted average share price on the date of the Loan Agreement and the closing share price on the day immediately preceding the date of the payment request notification by the lender applied to the aggregate amount of amounts borrowed. The variability arising from the

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change in Orphazyme's share price is not closely related to the host debt instrument characterized mainly by interest rate and credit risk. Therefore, the embedded equity-linked amount is separated from the host debt instrument and accounted for as an embedded written call option at fair value through profit and loss. The call option is measured at fair value at level 2 in the fair value hierarchy using a Black-Scholes option valuation model. In measuring the fair value, various observable and unobservable inputs are required. Observable input mainly relates to the market price of Orphazyme's shares, and risk-free interest rate. Unobservable inputs mainly relate to the expected volatility of Orphazyme's share price and the term of the option.

The table below shows the inputs used in the valuation of the call option and the estimated fair value on June 30, 2020 and December 31, 2019:

	June 30, 2020	Dec 31, 2019
Dividend yield (%)	—	—
Expected volatility (%)	58.5%	57%
Risk-free interest rate (%)	(0.56%)	(0.63%)
Expected life (years)	2.67	3.2
Share price (DKK)	89.30	72.40
Fair value of call option (DKK 000)	<u>2,263</u>	<u>1,595</u>

The change in fair value of the call option is recognized as a finance expense in the statement of profit or loss. Based on the fair value of the call option on June 30, 2020, an expense of DKK 0.7 million was recognized for the period. As the Loan Agreement was executed in August 2019, there was no expense recognized for the six-month period June 30, 2019.

Note 7—Equity

The following table summarizes the Company's share activity:

	Ordinary Shares
December 31, 2018	19,939,564
Issuance of Bonus Shares as part of license agreement	26,060
Issuance of Matching Shares as part of 2017 LTIP	19,175
June 30, 2019	19,984,799
(No share activity in H2 2019)	—
December 31, 2019	19,984,799
Issuance of Bonus Shares as part of license agreement	20,650
Issuance of shares in connection with a private placement offering	7,032,937
Issuance of shares due to exercise of 2019 RSUs by some participants	6,543
June 30, 2020	27,044,929

As discussed in Note 5 above, in January 2020 the Company issued 20,650 shares as part of consideration payable to KLSDC and UCL relating to the license agreement.

On February 7, 2020 Orphazyme completed an offering of 7,032,937 shares in a directed issue and private placement and raised gross proceeds of approximately DKK 745 million and net proceeds of approximately DKK 694 million. The net proceeds of the directed issue and private placement is expected to support the U.S. and European filings for approval of arimoclomol for the treatment of Niemann-Pick disease Type C (NPC), as well as preparations for commercial launch.

The transaction consisted of a directed issue and private placement of up to 3,961,264 new shares of a nominal value of DKK 1 each (the "New Shares") and a private placement of up to 3,071,673 existing shares of a

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nominal value of DKK 1 each (the “Existing Shares” and together with the New Shares, the “Offer Shares”) at an offer price of DKK 106 per Offer Share, as determined by the Board of Directors of the Company through a book-building process (the “Offering”). The New Shares were issued without pre-emption rights for existing shareholders.

The offering of Existing Shares was facilitated by a share loan to the Company from related parties Novo Holdings A/S and Orpha Pooling B.V. (the “Lending Shareholders”) pursuant to a stock lending and subscription agreement with an obligation for the Company to redeliver new shares of an equivalent number as the Existing Shares borrowed by the Company from each of the Lending Shareholders (the “Replacement Shares”), which were issued without pre-emption rights for existing shareholders. The Lending Shareholders did not participate in the Offering and were only facilitating the loan of the Lending Shares for purposes of the Company’s offering of Existing Shares in the Offering.

As discussed in Note 5 above, in April 2020 certain members of the board of directors exercised their 2019 RSUs and the Company issued 6,543 shares in exchange for DKK 0.4 million.

Following the above activity, the total nominal share capital of the Company as of June 30, 2020 was DKK 27,044,929, representing 27,044,929 ordinary shares each with a nominal value of DKK 1.

Shares issued after the balance sheet date:

Subsequent to June 30, 2020, a board member exercised his 2019 RSUs and the Company issued 3,451 ordinary shares in exchange for DKK 0.4 million.

As mentioned above in Note 5, the Matching Shares from the 2019 LTI Program fully vested in July and the Company issued 31,250 ordinary shares to the participants in exchange for the nominal value of DKK 1 per share, or DKK 31,250.

Note 8—Loss Per Share

The following reflects the net loss attributable to shareholders and share data used in the basic and diluted loss per share computations for the six months ended June 30, 2020 and 2019:

	Six months ended June 30, 2020 DKK (000)	Six months ended June 30, 2019 DKK (000)
Loss for the period	(251,415)	(163,908)
Weighted-average shares outstanding	25,447,748	19,977,123*
Loss per share, basic and diluted	(9.88)	(8.20)*

* Recalculated retrospectively as a result of Bonus Shares issued in January 2020.

Basic loss per share is calculated by dividing the net loss attributable to ordinary shareholders for the period by the weighted-average number of ordinary shares outstanding during each period. Diluted loss per share is calculated by dividing the net loss by the weighted-average number of ordinary shares outstanding during the period increased by the dilutive effect of the assumed issuance of any outstanding share-based awards. Due to the fact that Orphazyme has incurred losses for each period presented, the potential shares issuable related to outstanding equity awards have been excluded from the calculation of diluted loss per share as the effect of such shares is anti-dilutive. Therefore, basic and diluted loss per share are the same for each period presented.

As disclosed in Note 4.3 of the consolidated financial statements for the year ended December 31, 2019, in January 2020, Bonus Shares were issued to KLSDC and UCL under the terms of the license agreement entered

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into in October 2017. Basic and diluted loss per share for the comparative period presented has been adjusted retrospectively to include these Bonus Shares in the number of weighted average shares outstanding for the six-months ended June 30, 2019.

Note 9—Subsequent Events

In July 2020, Orphazyme introduced the 2020 LTI Program as further described in Note 5 above.

Also in July 2020, the Matching Shares from the 2019 LTI Program were issued to the participants and a board member exercised his 2019 RSUs, as further described in Note 7 above.

Through and including _____, 2020, (the 25th day after the date of this prospectus), all dealers effecting transactions in the ordinary shares or ADSs, whether or not participating in the global offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

7,616,146 Ordinary Shares
(including Ordinary Shares in the Form of American Depositary Shares)



Orphazyme A/S

\$ _____ per American Depositary Share
DKK _____ per Ordinary Share

PROSPECTUS

BofA Securities
Cowen
Guggenheim Securities
Danske Markets

_____, 2020

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 6. Indemnification of Directors and Officers.

According to the Danish Companies Act, the general meeting is allowed to discharge our board members and members of our executive management from liability for any particular financial year based on a resolution relating to the financial statements. This discharge means that the general meeting will discharge such board members and members of our executive management from liability to our company. However, the general meeting cannot discharge any claims by individual shareholders or other third parties. In addition, the discharge can be set aside in case the general meeting prior to its decision to discharge was not presented with all reasonable information necessary for the general meeting to assess the matter at hand.

Additionally, we have agreed to indemnify our board members and members of our executive management and employees, in relation to certain claims. We will not, however, indemnify our board members, executive management and employees, in respect of: (i) claims against a person pursuant to Danish law raised before the Danish Courts, except claims arising from the offer, sale and listing of the our securities in the United States and/or its subsequent status as a listed company in the United States, including in respect of our reports filed with or furnished to the U.S. Securities and Exchange Commission; (ii) claims against a person for damages and legal costs related to criminal and/or grossly negligent or willful acts or omissions committed by the indemnified person; (iii) claims against an indemnified person, which is attributable to the gaining or purported gaining of any profit or advantage to which the indemnified person or any related natural or legal person was not legally entitled; (iv) claims covered by insurance; (v) claims brought against the indemnified person by us or any subsidiary of ours; and (vi) any sum payable to a regulatory authority by way of a penalty in respect of the indemnified person's personal non-compliance with any requirement of a regulatory nature howsoever arising. The indemnification will be limited to a maximum amount per claim per person equivalent to the gross proceeds obtained by us in this offering. The indemnification shall remain in force for a period of five years after the resignation of the indemnified person from us or our subsidiaries, if the claims made within such period are related to such person's services to us.

There is a risk that such indemnification will be deemed void under Danish law, either because the indemnification is deemed contrary to the rules on discharge of liability in the Danish Company Act, as set forth above, because the indemnification is deemed contrary to sections 19 and 23 of the Danish Liability and Compensation Act, which contain mandatory provisions on recourse claims between an employee (including members of our executive management) and the company, or because the indemnification is deemed contrary to the general provisions of the Danish Contracts Act.

The form of underwriting agreement filed as Exhibit 1.1 to this registration statement will also provide for indemnification of us and our directors and officers upon the terms and subject to the conditions specified therein.

In addition, we provide our board members and executive management with directors' and officers' liability insurance.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 7. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

- On January 26, 2017, we issued 534,007 new Class C shares to existing shareholders for net proceeds of DKK 48 million.
- On January 26, 2017 and June 29, 2017, we issued a total of 1,207,662 new Class C shares to LSP V Coöperatieve U.A. and ALS Investment Fund for net proceeds of DKK 109 million.
- On November 2, 2017, we issued 6,487,882 new ordinary shares in connection with the consolidation of the share classes.
- On November 6, 2017, we issued 7,500,000 new ordinary shares for gross proceeds of DKK 600 million.
- On November 20, 2017, we issued 838,092 new ordinary shares pursuant to the exercise of certain warrants.
- On January 29, 2018, we issued 11,380 new ordinary shares to University of Kansas, Kansas Life Sciences Development Company, Inc., or KLSDC, and UCL Business PLC, or UCL, under the terms of a license agreement entered into in October 2017.
- On January 31, 2019, we issued 26,060 new ordinary shares to KLSDC and UCL under the terms of a license agreement entered into in October 2017.
- On March 4, 2019, we issued 19,175 new ordinary shares to participants in our 2017 long-term incentive program.
- On January 31, 2020, we issued 20,650 new ordinary shares to KLSDC and UCL under the terms of a license agreement entered into in October 2017.
- On February 6, 2020, we issued 7,032,937 to investors for net proceeds of DKK 695 million.
- On March 27, 2020, our board of directors approved the issuance of up to 17,702 new ordinary shares of which 4,616, 1,927, 3,451 and 1,927 ordinary shares have subsequently been issued and registered with the Danish Business Authority in connection with the exercise of restricted share units by our board of directors.
- On July 29, 2020, we issued 31,250 ordinary shares in connection with the vesting and exercise of Matching Shares.

The offers, sales and issuances of the securities described in the preceding paragraphs were exempt from registration either: (a) under Section 4(a)(2) of the Securities Act in that the transactions were between an issuer and sophisticated investors and did not involve any public offering within the meaning of Section 4(a)(2); (b) in reliance on Rule 144A promulgated under the Securities Act in that offers, sales and issuances were made only to “qualified institutional buyers” (as such term is defined in Rule 144A(a)(1)); (c) under Rule 701 promulgated under the Securities Act in that the transactions were under compensatory benefit plans and contracts relating to compensation; or (d) under Regulation S promulgated under the Securities Act in that offers, sales and issuances were not made to persons in the United States and no directed selling efforts were made in the United States.

Item 8. Exhibits and Financial Statement Schedules

(a) Exhibits

See the Exhibit Index.

The agreements included as exhibits to this registration statement contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties were made solely for the benefit of the other parties and (i) were not intended to be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) may have been qualified in such agreement by disclosure that was made to the other party in connection with the negotiation of the applicable agreement; (iii) may apply contract standards of “materiality” that are different from “materiality” under the applicable securities laws; and (iv) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement.

Notwithstanding the inclusion of the foregoing cautionary statements, we are responsible for considering whether additional specific disclosure of material information regarding material contractual provisions is required to make the statements in this registration statement not misleading.

(b) Financial Statement Schedules

All schedules have been omitted because the information required to be set forth therein is not applicable or has been included in the consolidated financial statements and notes thereto.

Item 9. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described in Item 6 hereof, or otherwise, the registrant has been advised that in the opinion of the U.S. Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

- (i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (ii) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

EXHIBIT INDEX

<u>Exhibits number</u>	<u>Description of exhibit</u>
1.1*	Form of Underwriting Agreement
3.1*	Articles of Association of Orphazyme A/S, as currently in effect
3.2*	Form of Articles of Association of Orphazyme A/S to be effective after the initial public offering
4.1	Form of Deposit Agreement among Orphazyme A/S, The Bank of New York Mellon, as depositary, and all owners and holders of American Depositary Shares issued thereunder (incorporated by reference to the Form F-6 Registration Statement (File No. 333-248669) filed with the Commission on September 8, 2020)
4.2	Form of American Depositary Receipt evidencing American Depositary Shares (included in exhibit 4.1)
5.1	Form of Opinion of Gorrissen Federspiel Advokatpartnerselskab
10.1+*	Asset Purchase Agreement, dated May 13, 2011, between Orphazyme A/S and CytRx Corporation
10.2+*	University of Miami Exclusive License Agreement, dated September 20, 2019, between the University of Miami and Orphazyme A/S
10.3+*	License Agreement, dated October 31, 2017, among Orphazyme A/S, KU Center for Technology Commercialization Inc., the University of Kansas, Kansas Life Sciences Development Company, Inc. and UCL Business PLC
10.4*	Agreement for the Provision of a Loan Facility of up to €18,000,000 dated August 29, 2017 between Orphazyme A/S and Kreos Capital VI (UK) Limited
21.1*	Subsidiaries of the registrant
23.1	Consent of EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S), independent registered public accounting firm
23.2	Consent of Gorrissen Federspiel Advokatpartnerselskab (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page to this registration statement)

* Previously filed.

Indicates a management contract or any compensatory plan, contract or arrangement.

+ Pursuant to Item 601(b)(10)(iv) of Regulation S-K promulgated by the Securities and Exchange Commission, certain portions of this exhibit have been redacted because they are both not material and would be competitively harmful if publicly disclosed. The Registrant hereby agrees to furnish supplementally to the Securities and Exchange Commission, upon its request, an unredacted copy of this exhibit.”

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this Amendment No. 2 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Copenhagen, Denmark, on September 23, 2020.

ORPHAZYME A/S

By: /s/ Kim Stratton

Kim Stratton
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 2 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Kim Stratton</u> Kim Stratton	Chief Executive Officer (<i>Principal Executive Officer</i>)	September 23, 2020
<u>/s/ Anders Vadsholt</u> Anders Vadsholt	Chief Financial Officer (<i>Principal Financial Officer and Principal Accounting Officer</i>)	September 23, 2020
<u>*</u> Georges Gemayel, Ph.D.	Chairman of the Board of Directors	September 23, 2020
<u>*</u> Bo Jesper Hansen, Ph.D., M.D.	Deputy Chairman of the Board of Directors	September 23, 2020
<u>*</u> Martin Bonde, Ph.D.	Director	September 23, 2020
<u>*</u> Rémi Droller	Director	September 23, 2020
<u>*</u> Sten Verland, Ph.D.	Director	September 23, 2020
<u>*</u> Martijn Kleijwegt	Director	September 23, 2020
<u>*</u> Anders Hedegaard	Director	September 23, 2020

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
* _____ Catherine Moukheibir	Director	September 23, 2020
* _____ Carolee Barlow	Director	September 23, 2020
* By: /s/Anders Vadsholt _____ Anders Vadsholt <i>Attorney-in-fact</i>		

SIGNATURE OF AUTHORIZED U.S. REPRESENTATIVE OF THE REGISTRANT

Pursuant to the requirements of the Securities Act of 1933, as amended, the undersigned, the duly authorized representative in the United States of Orphazyme A/S, has signed this Amendment No. 2 to the Registration Statement on Form F-1 in Chicago, Illinois on September 23, 2020.

ORPHAZYME US, INC.

By: /s/ Molly Painter

Molly Painter

President

Orphazyme A/S
Ole Maaløes Vej 3
DK-2200 Copenhagen N
Denmark
(the “**Company**”)

Dear Madams and Sirs,

Date:
23 September 2020

Orphazyme A/S – Issue of an aggregate of up to 8,758,567 ordinary shares (which may be represented by American Depositary Shares) in connection with an initial public offering in the United States (the “U.S. Offering”) and concurrent private placement in Europe (the “European Private Placement” and together with the U.S. Offering, the “Global Offering”)

We have acted as Danish legal counsel to Orphazyme A/S, company reg. no. (CVR) 32 26 63 55 (the “**Company**”) with respect to (i) the issue by the Company of up to 7,616,146 ordinary shares with a nominal value of DKK 1 per share (the “**Initial Shares**”), which may be represented by American Depositary Shares (“**ADSs**”), each such ADS representing one ordinary share, such Initial Shares to be subscribed for by BofA Securities, Inc., Cowen and Company, LLC, Guggenheim Securities, LLC, acting as representatives of the several underwriters (the “**Underwriters**”) in the U.S. Offering and by the Underwriters (or by or through any affiliate of the Underwriters, other than Guggenheim Securities, LLC), including Danske Markets Inc., on behalf of investors in the European Private Placement, acting severally and not jointly, and (ii) the grant by the Company to the Underwriters, acting severally and not jointly, of the option to subscribe for, all or any part of up to 1,142,421 additional ordinary shares (the “**Option Shares**”), which may be represented by additional ADSs (the “**Option ADSs**”). The Initial Shares and the Option Shares are herein referred to, collectively, as the “**Underlying Shares**”. The aforesaid ADSs to be delivered to the Underwriters upon deposit of the Initial Shares (the “**Initial ADSs**”) together with the with the Option ADSs, are herein called, collectively, the “**Offered ADSs**”.

The Underlying Shares are expected to be admitted to trading and official listing on Nasdaq Copenhagen A/S (“**Nasdaq Copenhagen**”) and the Offered ADSs are expected to be listed on the Nasdaq Global Select Market in the United States (“**Nasdaq Global**”).

This opinion (the “**Opinion**”) is being furnished in connection with the registration statement, as the same may be amended from time to time, (the “**Registration Statement**”) on Form F-1 filed by the Company with the Security and Exchange Commission on 21 September 2020 pursuant to the Securities Act of 1933, as amended (the “**Securities Act**”).

Axel Towers, Axeltorv 2, 1609 Copenhagen V, Denmark
+45 33 41 41 41, gorrissenfederspiel.com | Advokatpartnerselskab, VAT 38 05 24 97

1 For the purpose of this Opinion we have examined the following documents and performed the following investigations:

- a) a copy of the Registration Statement;
- b) a copy of the articles of association of the Company dated 21 September 2020 (the “**Launch Articles**”);
- c) a copy of draft articles of association of the Company, expected to be amended in connection with settlement of the Initial Shares and Initial ADSs expected to be dated on or around 24 September 2020 (the “**Closing Articles**”) and a copy of draft articles of association of the Company to be amended in connection with settlement of the Option Shares and Option ADSs (the “**Option Articles**” and together with the Launch Articles and the Settlement Articles, the “**Articles of Association**”);
- d) a copy of the minutes from the extraordinary general meeting of the Company held on 21 September 2020;
- e) a copy of the resolutions passed by the Board of Directors of the Company on 4 September 2020, 21 September 2020, and the draft resolution expected to be passed by the Board of Directors on or around 24 September 2020, respectively approving *inter alia* the Global Offering documents, the application for admission to listing of the ADSs on Nasdaq Global, the issuance and sale of the Underlying Shares and the Offered ADSs, and resolving to accept the Company’s participation in the listing and Global Offering process;
- f) an online transcript of 21 September 2020 (before 8 pm CET) from the Danish Business Authority (in Danish: “*Erhvervsstyrelsen*”) concerning the Company; and
- g) such other documents, agreements and records as we have deemed necessary for the purposes of rendering this Opinion.

The documents mentioned in Sections 1a)—1g) above are referred to as the “**Documentation**” and individually as a “**Document**”.

2 In considering the above Documents for the purposes of delivering this Opinion we have assumed:

- a) that any copies of the Documents that we have reviewed are complete and accurate copies of the originals of such Documents and that the originals of such Documents were executed in the manner appearing on such copies and that all material supplied to us (whether original or in copy) is authentic, has been supplied in full and has not subsequently been amended;

- b) the genuineness of all signatures and dates and the authenticity of all documents submitted to us as originals;
- c) that each Document is true, correct and fully updated and has not been amended or revoked after the date of each such Document;
- d) that copies submitted to us of minutes of meetings and/or resolutions (other than the minutes referred to in Section 1d)) correctly record the proceedings at such meetings and/or subject matter which they purport to record, and that all resolutions set out in such copies were duly passed;
- e) the information contained in the online transcripts dated 21 September 2020 from the Danish Business Authority (Section 1f)) concerning the Company being accurate, complete and fully updated;
- f) that the subscription price established for the ADSs, and by extension the Underlying Shares, is the prevailing market price established on the basis of a book-build process as such term is construed under prevailing Danish market practice, in accordance with applicable Danish corporate law principles, for the ADSs, and by extension the Underlying Shares at the time of issue;
- g) the genuineness of all signatures and dates on all Documents examined by us, and that the identities of the signatories are as stated or written, other than the minutes referred to in Section 1d);
- h) that any power of attorney referred to in the Documents has neither been revoked nor amended;
- i) that there are no provisions of the laws of any jurisdiction (other than Denmark) that would have any adverse implication in relation to the opinions expressed herein;

- j) that the Company will, simultaneously with respectively the Closing Time and the Date of Delivery (as defined in the Underwriting Agreement), receive payment for respectively all of the Offer Shares;
- k) the accuracy and completeness of all factual matters, statements of fact, factual representations, warranties and other information as to matters of fact described or set forth in the Documents, as we have not made any independent investigation in respect thereof;
- l) the due compliance of all matters with and validity and binding effect under such laws as govern any activities contemplated other than the laws of Denmark in respect of which we are opining;
- m) that a “corporate benefit”, as such term is construed under Danish law, will accrue to the Company from entering into any transactions related to the Documents, if relevant; and
- n) that all formalities and requirements of the laws, regulations or rules of stock exchanges of any relevant jurisdiction other than Denmark and of any regulatory authority therein, applicable to the execution, performance, delivery, perfection and enforceability of any Document have been or will be duly complied with.

3 This Opinion is subject to the following qualifications:

- a) This Opinion is given only with respect to the laws of Denmark as in force today and as such laws are currently applied by Danish courts and we express no opinion with respect to the laws of any other jurisdiction nor have we made any investigations as to any law other than the laws of Denmark;
- b) the ability of a Danish limited liability company to delegate authority in general to third parties to act on its behalf is restricted pursuant to Danish law. Thus, the granting by a Danish limited liability company of powers to third parties to act on their behalf may be considered void and set aside by the Danish courts if the powers are not restricted to specific, limited and well-defined matters and given for a certain period of time;
- c) in rendering this opinion we have relied as to certain matters of information and fact obtained from the Company and other sources reasonably believed by us to be credible;
- d) we express no opinion as to the exact interpretation of any particular wording in any Document by a court;
- e) the online transcript from the Danish Business Authority listed in 1f) is not conclusive evidence of whether or not: (i) a winding up or administration order has been issued, (ii) a resolution for winding up has been passed; or (iii) an administrator or liquidator

has been appointed. Notice of the matters listed in (i), (ii) and (iii) in this paragraph may not be filed with the Danish Business Authority immediately and, when filed, may not be entered in the relevant company's public file immediately. In addition, such transcripts do not report petitions for winding up or administration prior to the issuance of the order therefore; and

- f) in this Opinion Danish legal concepts are expressed in English terms and not in their original Danish terms. The concepts concerned may not be identical to the concepts described by the same English terms as they exist under the laws of other jurisdictions.

4 Based upon and subject to the assumptions and the qualifications above we are of the opinion that:

- a) The Company is a limited liability company (in Danish: "aktieselskab") registered and validly existing under the laws of Denmark;
- b) Pursuant to the Articles of Association and the information contained in the online transcript dated 21 September 2020 from the Danish Business Authority (Section 1f), the ordinary shares of the Company, excluding any Underlying Shares to be issued in connection with the Global Offering, has been validly issued and has been registered with the Danish Business Authority and constitute valid and fully paid shares;
- c) the Underlying Shares, will upon final approval by the Board of Directors in accordance with the draft resolution expected to be passed on or around 24 September 2020 referred to in Section 1e), subscription, payment in full, issuance with VP Securities A/S and registration with the Danish Business Authority, constitute valid and fully paid shares; and
- d) there are for holders of the Underlying Shares, if issued, no obligation to provide additional funding pursuant to the Articles of Association or the Danish Companies Act.

We advise you that we are not assuming any obligation to notify you of any changes in this opinion as a result of any facts or circumstances that may come to our attention in the future or as a result of any changes in laws which may hereafter occur.

This opinion is limited to matters of the laws of Denmark (excluding Greenland and the Faroe Islands) as in effect and applied on the date of this opinion and we express no opinion with respect to the laws of any other jurisdiction, nor have we made any investigation as to any laws other than the laws of Denmark.

This opinion shall be governed by and construed in accordance with Danish law, and any legal suit action or proceeding against us by the Company arising out of or based upon this opinion shall be exclusively instituted in a Danish court.

This Opinion is rendered to the Company in connection with the Global Offering and shall not be relied upon by any person other than the Company or be used by the Company for any other purpose than the Global Offering.

We accept no responsibility or legal liability to any person other than the Company in relation to the contents of this opinion and claims may only be brought against Gorrissen Federspiel Advokatpartnerselskab and not against individual partners or employees of Gorrissen Federspiel Advokatpartnerselskab on the basis hereof.

We hereby consent to the filing of this Opinion as an exhibit to the Registration Statement and to the reference to our law firm (in Danish: "*Advokatpartnerselskab*") under the caption "Legal Matters" in the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

We are qualified to practice law in Denmark.

Yours sincerely

/s/ Rikke Schiøtt Petersen

Gorrissen Federspiel Advokatpartnerselskab

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated June 30, 2020, except for Notes 3.1 and 3.7, as to which the date is August 5, 2020, with respect to the consolidated financial statements of Orphazyme A/S for the years ended December 31, 2019 and 2018, included in Amendment No. 2 to the Registration Statement (Form F-1 No. 333-248607) and related Prospectus of Orphazyme A/S for the registration of its common shares.

/s/ EY Godkendt Revisionspartnerselskab (formerly Ernst & Young P/S)

Copenhagen, Denmark

September 23, 2020