Filed pursuant to Rule 424(b)(4)
Registration No. 333-253735

PROSPECTUS

9,750,000 American Depositary Shares

Representing 9,750,000 Ordinary Shares

This is the initial public offering of American Depositary Shares, or ADSs, representing ordinary shares, nominal value £0.001 per share, or ordinary shares, of Achilles Therapeutics plc. We are offering 9,750,000 ADSs. Each ADS represents one ordinary share. The initial public offering price is $18.00 per ADS.

Prior to this offering, there has been no public market for the ADSs or our ordinary shares. Our ADSs have been approved for listing on The Nasdaq Global Select Market under the symbol "ACHL."

We are both an "emerging growth company" and a "foreign private issuer" under the U.S. federal securities laws and have elected to comply with certain reduced public company reporting requirements. See "Prospectus summary—implications of being an emerging growth company" and "Prospectus summary—Implications of being a foreign private issuer."

	Per share	Total
Initial public offering price	$ 18.00	$175,500,000
Underwriting discounts[(1)]	$ 1.26	$ 12,285,000
Proceeds, before expenses, to us	$ 16.74	$163,215,000

(1) See "Underwriting" for additional information regarding underwriting compensation. We have agreed to reimburse the underwriters for certain expenses in connection with the offering.

Investing in the ADSs involves a high degree of risk. Before buying any ADSs, you should carefully read the discussion of material risks of investing in the ADSs. See the "Risk factors" section beginning on page 15 of this prospectus.

Neither the Securities and Exchange Commission nor any state 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.

Following the closing of this offering, we will have two classes of ordinary shares, ordinary shares and Class A ordinary shares. The ordinary shares and Class A ordinary shares will be economically equivalent to each other. The rights of the holders of our ordinary shares and Class A ordinary shares will be identical, except with respect to voting and conversion. Each ordinary share will be entitled to one vote and will not be convertible into any other class of our share capital. The Class A ordinary shares do not have associated voting rights and each Class A ordinary share is convertible at any time at the election of the holder into one ordinary share. See "Description of share capital and articles of association—Ordinary shares" for more information on the rights of the holders of our ordinary shares and Class A ordinary shares.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to an additional 1,462,500 ADSs from us at the initial public offering price, less underwriting discounts and commissions.

The underwriters expect to deliver the ADSs against payment in New York, New York on April 6, 2021.

J.P. Morgan **BofA Securities** **Piper Sandler**

Chardan **Oppenheimer & Co.** **Kempen & Co**

Prospectus dated March 30, 2021

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Neither we nor any of the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. 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 are offering to sell, and seeking offers to buy, ADSs only in jurisdictions where offers and sales are permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of ADSs. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the ADSs and the distribution of this prospectus outside of the United States. We are incorporated under the laws of England and Wales. Under the rules of the U.S. Securities and Exchange Commission, or the SEC, we are currently eligible for treatment as a “foreign private issuer.” As a foreign private issuer, we will not be required to file periodic reports and financial statements with the SEC as frequently or as promptly as domestic registrants whose securities are registered under the Securities Exchange Act of 1934, as amended.

Through and including April 24, 2021 (25 days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this 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.

About this prospectus

Pursuant to the terms of a corporate reorganization effected in December 2020, all shareholders of Achilles Therapeutics UK Limited (at that time named Achilles Therapeutics Limited) exchanged each of the shares held by them for equivalent shares (both in terms of number and class but with a nominal value of £1.20 per share) in Achilles TX Limited. As a result, Achilles Therapeutics UK Limited became a wholly owned subsidiary of Achilles TX Limited. On February 10, 2021, we altered the legal status of Achilles TX Limited under the laws of England and Wales from a private limited company by re-registering as a public limited company and changing our name from Achilles TX Limited to Achilles Therapeutics plc. Our audited financial statements for the years ended December 31, 2019 and 2020 pertain to Achilles Therapeutics plc. Following the corporate reorganization, the historical consolidated financial statements of Achilles Therapeutics plc were retrospectively adjusted to include the historical financial results of Achilles Therapeutics UK Limited for all periods presented. In this prospectus, we refer to all transactions related to our reorganization as the "corporate reorganization."

Unless otherwise indicated or the context otherwise requires, all references in this prospectus to the terms "Achilles," "the company," "the group," "we," "us" and "our" refer to: (i) Achilles Therapeutics UK Limited (and, where the context requires, its subsidiaries) prior to the completion of our corporate reorganization; (ii) Achilles TX Limited (and, where the context requires, its subsidiaries) following the completion of our corporate reorganization, but prior to the re-registration of Achilles TX Limited as a public limited company and the change of its name to Achilles Therapeutics plc; and (iii) Achilles Therapeutics plc (and, where the context requires, its subsidiaries) following the corporate reorganization and subsequent re-registration of Achilles TX Limited as a public limited company and the change of its name to Achilles Therapeutics plc.

Trademarks

We own various trademark registrations and applications, and unregistered trademarks, including ACHILLES, PELEUS, VELOS and our corporate logo. All other trade names, trademarks and service marks of other companies appearing in this prospectus are the property of their respective holders. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend to use or display other companies' trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Presentation of financial information

We maintain our books and records in pounds sterling. For financial reporting, our results are translated to U.S. dollars and we prepare our consolidated financial statements in accordance with generally accepted accounting principles in the United States, or US GAAP, as issued by the Financial Accounting Standards Board. All references in this prospectus to "$" are to U.S. dollars and all references to "£" and "GBP" are to pounds sterling. Unless otherwise indicated, certain pounds sterling amounts contained in this prospectus have been translated into U.S. dollars at the rate of $1.365 to £1.00, which was the noon buying rate of the Federal Reserve Bank of New York on December 31, 2020, the last business day of our fiscal period ended December 31, 2020. Such U.S. dollar amounts are not necessarily indicative of the amounts of U.S. dollars that could actually have been purchased upon exchange of pounds sterling at the dates indicated.

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. We have historically conducted our business through Achilles Therapeutics UK Limited, and therefore our historical consolidated financial statements present the consolidated results of operations of Achilles Therapeutics UK Limited and its subsidiaries. Following the completion of this offering, and after the consummation of the transactions described under the section titled "Corporate reorganization," our consolidated financial statements will present the consolidated results of operations of Achilles Therapeutics plc and its subsidiaries. We expect that the consummation of the transactions described under the section titled "Corporate reorganization" will not have a material effect on our consolidated financial statements.

Prospectus summary

The following summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider before investing in the ADSs. You should carefully read the entire prospectus, and the registration statement of which this prospectus is a part, including "Risk factors," "Management's discussion and analysis of financial condition and results of operations," and our consolidated financial statements and the related notes, in each case included in this prospectus, before making an investment decision.

Overview

We are a clinical stage immuno-oncology biopharmaceutical company developing precision T cell therapies to treat multiple types of solid tumors. We are focused on advancing cancer therapies through our pioneering work in the field of tumor evolution and our belief that clonal neoantigens represent the most specific class of cancer cell targets. Our platform enables us to identify mutations formed early in the development of a cancer that give rise to antigens that are expressed by all of a patient's cancer cells but are absent from healthy tissue. We refer to this novel class of solid tumor targets as clonal neoantigens. To identify clonal neoantigens in a patient, we have developed a proprietary bioinformatic platform called PELEUS. This platform employs sophisticated statistical algorithms trained on the unique tumor genetic data derived from our exclusive license to data from the TRACERx study, which aims to analyze tumor samples from more than 840 non-small cell lung cancer, or NSCLC, patients. Once we have identified the clonal neoantigens our proprietary manufacturing process, VELOS, uses the patient's T cells and blood-derived dendritic cells to create a Clonal Neoantigen Targeting T cell therapy, or cNeT, that specifically targets multiple clonal neoantigens to eradicate the tumor. We are currently conducting two open-label Phase I/IIa trials to evaluate our cNeT product candidate, ATL001, in advanced NSCLC and metastatic or recurrent melanoma and expect to report interim data from these trials in the second half of 2022. We are also using our Material Acquisition Platform, or MAP, network, which consists of a network of participating medical facilities, to collect tissue samples from other tumor types, such as head and neck squamous cell carcinoma, or HNSCC, renal cell carcinoma, or RCC, triple negative breast cancer, or TNBC, and bladder cancer, to develop our PELEUS platform to identify clonal neoantigens in these tumor types. We expect to file investigational new drug applications, or INDs, for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.

Cancers originate from mutations in the DNA of individual cells that promote uncontrolled proliferation, metastasis and evasion of the immune system. Tumors within any given patient evolve in a Darwinian branched manner, where the mutations present at the point of a cell becoming cancerous will be carried to all future cancer cells and are therefore present in every future tumor cell of the patient. Additional mutations continue to arise in response to environmental pressures, carcinogens and genomic instability. These additional mutations increase the intra-tumor genomic variation and are present in some tumor cells but not others.

Mutations can give rise to neoantigens expressed in the tumor cells. The neoantigens arising from the early mutations present at the time of cell transformation are referred to as clonal neoantigens while those that arise later in tumor development are referred to as subclonal neoantigens. As a result of this branched evolution, clonal neoantigens are expressed in every tumor cell, while subclonal neoantigens are expressed only by a fraction of tumor cells. Despite the recent advances in cancer therapy, no therapy to date has been able to specifically identify and target only the clonal neoantigens found throughout the target tumor. We believe this is a key reason for limitations in efficacy and durability of many of today's cancer therapies.

We believe that targeting clonal neoantigens is the key to unlocking immunotherapy in solid tumors and have developed our platform to specifically address these targets. By targeting multiple clonal neoantigens, we have the potential to reduce the likelihood of immune escape by tumor cells, thereby enhancing long-term tumor control, while also reducing the potential for off target toxicity. We utilize our bioinformatics platform, PELEUS, to identify clonal neoantigens in patients and combine these targets with our VELOS manufacturing process, which utilizes a physiological, antigen-driven expansion process to create a functionally fitter T cell product candidate. We believe the resulting cNeT product candidates can overcome many of the challenges faced by existing immunotherapies for the treatment of solid tumors.

Overview of current therapies and their limitations

In the last decade, clinical trials have demonstrated the utility of the immune system in the fight against cancer, including some studies that have demonstrated impressive clinical responses against late-stage metastatic disease. Immuno-oncology therapies approved or in development include vaccines and checkpoint inhibitors, which are designed to re-activate the immune response to cancer, and genetically engineered immune cells, such as CAR-T and TCR-T therapies, which are designed to recognize and attack cancerous cells. While these existing immuno-oncology therapies have shown some impressive results in treating cancer, they each have limitations. An alternative approach, known as tumor infiltrating lymphocyte, or TIL, therapy, aims to extract T cells from the patient's tumor, expand them outside the body and reinfuse the expanded cells back into the patient.

Standard TIL therapy has demonstrated some of the most impressive results in clinical trials to date. These therapies have been observed to induce significant response rates as well as including some complete responses in clinical trials for melanoma, cervical carcinoma and NSCLC. Despite the clinical benefits provided by standard TIL therapy, we believe the technology has been limited by several factors, including an inability to specifically target clonal neoantigens coupled with lack of T cell fitness, driving potential limitations to efficacy and durability, toxicity concerns and manufacturing and scalability challenges.

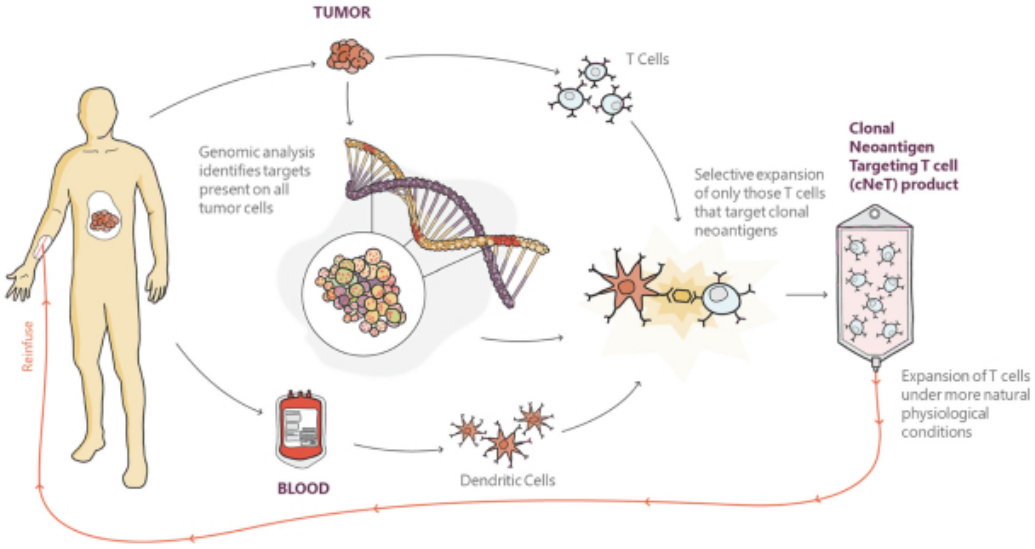
Our solution

To address the limitations of current immuno-oncology approaches, we developed Clonal Neoantigen Targeting T cells, or cNeT. Our approach uses a precision TIL-based therapy to target what we believe to be the most specific tumor antigens, clonal neoantigens, in solid tumors. We believe that tumor clonal neoantigens represent optimal tumor targets because they are recognized by the immune system as foreign antigens and are absent in normal, healthy tissue but present in all of a patient's tumor cells.

The foundation of our approach is the PELEUS bioinformatics platform which is designed to identify each patient's own tumor-specific clonal neoantigens by comparing DNA sequencing information from healthy tissue and tumor tissue. Using this information, we manufacture clonal neoantigen peptides, load them onto dendritic cells extracted from the patient's blood, and co-culture them with TILs extracted from the patient's tumor to activate and expand a subset of the T cells. We call this proprietary manufacturing process VELOS. This process creates a cNeT product candidate significantly enriched for T cells designed to recognize and specifically target multiple clonal neoantigens across all of the patient's tumor cells. We have designed and are continuing to enhance an automated, fully-closed system for cell manufacturing, which we believe will be readily scalable for commercial supply and has the potential to overcome many of the manufacturing challenges associated with standard TIL therapies. Our current VELOS process has an end-to-end time of approximately nine weeks, with a goal of further reducing the time to six to eight weeks.

The graphic below outlines our proprietary process.

Our cNeT approach



Our cNeT is designed to be:

- *Specific and durable*—We design our cNeT to specifically target multiple clonal neoantigens present in a patient's tumor. We believe this specificity for multiple targets will reduce the likelihood of tumor escape and increase the rates of durable complete response.
- *Functionally fit*—The use of dendritic cells to drive physiological, antigen-driven T cell expansion reduces the need for non-physiological IL-2 driven expansion and allows the production of fit T cell populations of CD4+ and CD8+ T cells capable of significant expansion and persistence in the patient. Our VELOS manufacturing process allows us to modulate the levels of IL-2 used in the manufacture and administration of our cNeT product candidates, which in turn allows us to tailor the treatment regimen and IL-2 usage to the patient's specific tumor burden and comorbidities to potentially reduce toxicity concerns.
- *Well-tolerated*—Clonal neoantigens are absent from healthy tissue, which we believe minimizes the risk of off-tumor toxicity.
- *Designed to be cost effectively manufactured at scale*—The manufacturing process for cNeT has been designed, from its inception, to be compatible with industrialization and scalability while considering cost of goods. We have designed, and are developing, our manufacturing process to be fully-automated in a closed end-to-end system, in order to decrease cost and maximize yield.

Our approach also allows us to determine the dose of active cNeT cells in each patient's cNeT therapy. We believe this information will allow us to investigate potential relationships between cNeT dose, cNeT persistence and clinical response. We plan to use these correlations to further develop our understanding of the cellular mechanism of TIL therapy and support the design and the evaluation of next-generation processes for cNeT manufacture.

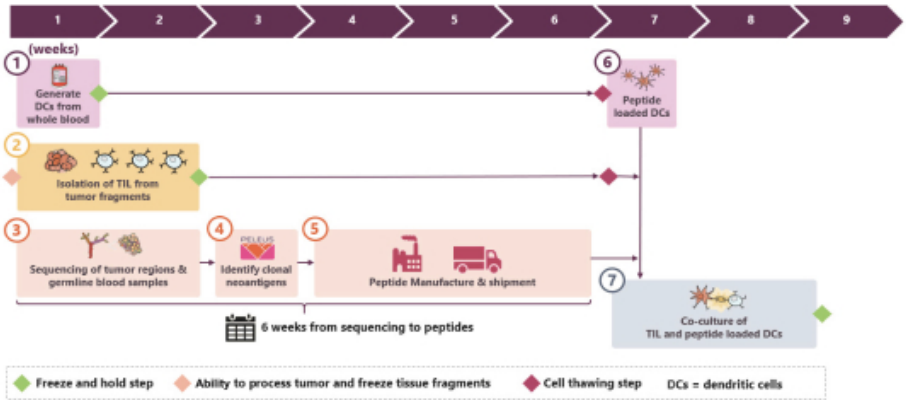
Our PELEUS bioinformatics platform—a unique, proprietary tool for identification of clonal neoantigens

PELEUS is our proprietary bioinformatics platform that is designed to identify each patient's tumor-specific neoantigens by comparing DNA sequencing information from healthy tissue and tumors. PELEUS combines data from the TRACERx study with sophisticated proprietary statistical models to distinguish which mutations in a patient's tumor are clonal or subclonal. TRACERx is a study which aims to analyze tumor samples from more than 840 NSCLC patients, with 780 NSCLC patients enrolled to date and collected over 3,000 tumor region samples. TRACERx collects multi-region samples from primary tumor and metastases (where available) over multiple points in time, generating whole exome sequencing data for each sample to understand each patient's tumor genomic evolution in detail. By searching for the overlap of coding mutations across multiple tumor regions across hundreds of patients, we have used TRACERx to identify the fundamental features that define clonal neoantigens. Our PELEUS algorithm is based on this reference data and is updated, trained and improved as additional patients are recruited to the study. We have exclusive commercial rights to the TRACERx database of multi-region samples from primary tumor and metastases and whole exome sequencing data for each individual patient. While TRACERx is focused on patients with lung cancer, we believe the principles of tumor evolution utilized by PELEUS are broadly applicable across multiple tumor types.

Our VELOS manufacturing process

We have invested in our manufacturing process from the outset with the goal of producing our cNeT at a commercial scale, which we believe will allow us to address the challenges faced by traditional methods of cell therapy manufacture. Our approach is to design a fully closed, end-to-end manufacturing system with integrated automation. We believe this will enable lower operating costs by reducing the number of labor-intensive manual operator steps and eliminate the requirement for the higher-grade manufacturing environment needed for open processing. We believe that this approach is essential for industrial scale-up, as it drives a reduction in process variability between operators, minimizes failure rates, and improves reproducibility. Our approach has been to invest in developing new technology, both in-house and with partners, to deliver an automated and standardized platform that permits rapid scale out while controlling commercial cost of goods. Our proprietary process benefits from the deep experience of our management team and founders in the field of adoptive cell therapy, or ACT, combined with a core focus on good manufacturing practice compliance and the use of closed systems.

Our current VELOS manufacturing process



Tissue procurement can occur prior to, during and after completion of standard systemic therapy. During the period between tissue procurement and final cNeT manufacture, patients can continue to be treated with standard of care therapy for their specific cancer. Once manufacture of the patient's specific cNeT is complete, it can be cryopreserved until required for administration upon disease progression.

Our pipeline

We believe our cNeT technology is uniquely positioned to overcome many of the challenges faced by existing therapies for solid tumors. We have prioritized the tumor types that we are seeking to address based on criteria that we believe will maximize the potential of our programs to demonstrate a clinical benefit, including expected clonal neoantigen burden, TIL infiltration and tumor accessibility, as well as high unmet medical need and future commercial potential. We have worldwide rights to our cNeT programs and are currently developing them for the treatment of the following solid tumor indications:

(1) Depending on the results of our Phase I/II monotherapy trials, we plan to engage with the FDA and EMA to discuss the addition of a Phase III registrational cohort in each study.

Our programs

Clinical trials for non-small cell lung cancer and melanoma

We are currently conducting two single arm, open-label, proof-of-concept clinical trials in advanced NSCLC and metastatic or recurrent melanoma:

- **CHIRON—**a Phase I/IIa clinical trial to evaluate the safety, tolerability and clinical activity of cNeT in up to 60 patients with advanced NSCLC, ongoing at six U.K. sites. Our IND was accepted by the U.S. Food and Drug Administration, or FDA, in December 2019 and we plan on expanding our trial in up to five U.S. sites and up to eight European sites in 2021.
- **THETIS—**a Phase I/IIa clinical trial to evaluate the safety, tolerability and clinical activity of cNeT in up to 60 patients with metastatic or recurrent melanoma. We are currently conducting this trial at three U.K. sites and submitted an IND to the FDA in November 2020 to enable expansion to U.S. sites in 2022. Further trial applications in the European Union are planned for 2021.

Our trial protocol allows us the option to include an additional cohort for each of CHIRON and THETIS to evaluate cNeT in combination with a PD-1 inhibitor (pembrolizumab in CHIRON and nivolumab in THETIS). We expect to report interim data from both clinical trials in the second half of 2022.

The primary endpoint of both trials is safety and tolerability. The secondary endpoints include change in tumor size from baseline, overall survival and objective response rate, disease control rate, time to response and progression-free survival based on RECIST criteria. Depending on the results of our Phase I/II monotherapy cohorts, we plan to engage with the FDA and EMA to discuss the addition of a Phase III registrational cohort in each study. If we advance ATL001 for NSCLC or metastatic or recurrent melanoma in combination with a PD-1 inhibitor, we expect to conduct additional Phase II clinical trials before advancing to a Phase III registrational trial. Other exploratory translational science analyses will aid interpretation of the observed clinical data, addressing such questions as how dose, phenotype, functionality and engraftment kinetics may affect clinical outcomes.

Follow-on indications

In addition to our two primary indications in advanced NSCLC and metastatic or recurrent melanoma, we are pursuing follow-on indications in patients with advanced HNSCC, RCC, TNBC and bladder cancer. Each of these indications are characterized by a high tumor and clonal mutational burden, high T cell infiltration into the tumor, readily accessible tumors, and high unmet medical need, which makes them attractive targets for our cNeT programs. We expect to submit INDs for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.

Our strategy

Our goal is to become a fully integrated biopharmaceutical company focused on the development, manufacture and commercialization of precision clonal neoantigen targeting therapies for multiple solid tumor types. To achieve this, we are pursuing the following strategies:

- Generate proof-of-concept clinical data for our cNeT approach in two lead solid tumor indications
- Expand our cNeT platform into multiple additional solid tumors and earlier lines of therapy
- Continuously develop and innovate our cNeT platform
- Build a scalable, automated manufacturing process
- Opportunistically collaborate with strategic partners to realize the full potential of our technology

Our team

We are led by Dr. Iraj Ali, our Chief Executive Officer, who was formerly a Managing Partner of Syncona, where he served as an Investment Director at Nightstar Therapeutics and Blue Earth Diagnostics. Our Chief Scientific Officer and co-founder is Professor Sergio Quezada, who is a recognized leader in the field of immune regulation and cancer immunology. Our Chief Medical Officer and co-founder is Professor Karl Peggs, who is a Professor of Transplant Science and Cancer Immunotherapy at University College London. Professor Peggs has significant experience in the clinical translation of T cell therapies and is the Director of the Cellular Immunotherapy Unit at University College London Hospitals NHS Trust, or UCLH. Our Scientific Advisory Board also includes our other scientific founders, Professors Charles Swanton, and Mark Lowdell, who are leaders in the respective fields of tumor evolution, and cell manufacturing. To date, we have raised approximately $231 million in net proceeds from a group of leading life sciences investors, including Forbion, Invus, OrbiMed, Perceptive Advisors, RA Capital, Redmile Group, Syncona and Boxer Capital of Tavistock Group.

Corporate information

Achilles Therapeutics Limited was incorporated under the laws of England and Wales in May 2016, under the name AchillesTX Limited and, until the completion of our corporate reorganization, was the holding company for Achilles Therapeutics US, Inc. In October 2016, AchillesTX Limited changed its name to Achilles Therapeutics Limited.

In January 2021, Achilles Therapeutics Limited changed its name to Achilles Therapeutics UK Limited. Achilles Therapeutics plc was incorporated under the laws of England and Wales in November 2020 as the holding company for Achilles Therapeutics Holdings Limited, under the name Achilles TX Limited. In November 2020, following the incorporation of Achilles TX Limited, Achilles Therapeutics Holdings Limited was incorporated under the laws of England and Wales as a wholly owned subsidiary of Achilles Therapeutics plc, to become a holding company for Achilles Therapeutics UK Limited and Achilles Therapeutics US, Inc. following completion of a corporate reorganization. Our registered office is located at 245 Hammersmith Road, London, W6 8PW, United Kingdom, and our telephone number is +44 (0)20 8154 4600. Our website address is www.achillestx.com. We have included our website address in this prospectus solely as an inactive textual reference. Our agent for service of process in the United States is Cogency Global Inc.

Corporate reorganization

Pursuant to the terms of a corporate reorganization effected in December 2020, all shareholders of Achilles Therapeutics UK Limited exchanged each of the shares held by them for equivalent shares (both in terms of number and class but with a nominal value per share of £1.20) in Achilles TX Limited and, as a result, Achilles Therapeutics UK Limited became a wholly-owned subsidiary of Achilles TX Limited. In February 2021, Achilles TX Limited was re-registered as a public limited company and was renamed as Achilles Therapeutics plc. Following this, Achilles Therapeutics plc sold the entire issued share capital of Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited for two newly issued ordinary shares of £1.00 each in the capital of Achilles Therapeutics Holdings Limited. As a result, Achilles Therapeutics UK Limited became a wholly-owned subsidiary of Achilles Therapeutics Holdings Limited and Achilles Therapeutics US, Inc. became an indirect wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. Following completion of this transfer, Achilles Therapeutics UK Limited distributed the entire issued share capital of Achilles Therapeutics US, Inc. to Achilles Therapeutics Holdings Limited. Immediately prior to, and conditional upon, completion of this offering, we intend to reorganize our share capital into two classes of ordinary shares: ordinary shares and Class A ordinary shares, each with a nominal value of £0.001. Please see “Corporate reorganization” beginning on page 107 for more information.

Risks associated with our business

Our ability to implement our business strategy is subject to numerous material and other risks that you should be aware of before making an investment decision. These risks are described more fully in the section entitled “Risk factors” in this prospectus. These risks include, among others:

- we have incurred significant losses since inception, and we expect to incur losses over the next several years and may not be able to achieve or sustain revenues or profitability in the future;
- even if we consummate this offering, we will need substantial additional funding to achieve our goals, and a failure to raise additional capital when needed on acceptable terms, or at all, could force us to delay, reduce or eliminate our product development programs or commercialization efforts;
- we are early in our development efforts. Our business is dependent on the successful development of ATL001 and future product candidates. If we are unable to advance our current programs, additional follow-on indications for ATL001 or any future product candidates into and through clinical trials, obtain marketing

approval and ultimately commercialize some, any or all of the product candidates we develop, or experience significant delays in doing so, our business will be materially harmed;

- clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future clinical trial results. We may encounter substantial delays in clinical trials, or may not be able to conduct or complete clinical trials on the expected timelines, if at all. If our research activities and clinical trials are not sufficient to support regulatory development and approval of some, all or any of our programs for ATL001 or any future product candidates, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development of such program or product candidate;
- our business is highly dependent on the success of our product candidate, ATL001, which was developed based on our PELEUS platform and utilizing our VELOS manufacturing process. All of our future product candidates are based, or will be based, on the same technologies and the failure of ATL001 may adversely affect their development;
- ATL001 or any of our future product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, require expansion of the trial size, limit their commercial potential, or result in significant negative consequences. For example, in our ongoing trials, we have observed two serious adverse events that were deemed related or possibly related to ATL001;
- our approach to the identification and manufacture of product candidates represents a novel approach to cancer treatment, which creates significant challenges for us. Generation of any cellular therapy, including our cNeT, to specifically target the mutations of an individual patient requires several weeks, in part reflecting the need to generate patient-specific genomic data and perform the bioinformatic analyses prior to initiation of manufacture. During the period from procurement of tumor and blood to completion of manufacturing, patients continue to receive standard of care therapies. In cases where disease progression is rapid, clinical deterioration of a patient's condition during the manufacturing period may mean that the patient is no longer able to receive our cNeT;
- we have no experience manufacturing ATL001 at commercial scale. Manufacturing and administering ATL001 is complex and we may encounter difficulties in production, particularly with respect to scaling up our manufacturing capabilities. If we encounter such difficulties, our ability to provide supply of our cNeT for clinical trials or for commercial purposes could be delayed or stopped;
- we face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do;
- if we fail to comply with our current or future obligations in any agreements under which we may license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our current or future licensors, we could lose license rights that are important to our business;
- if we are unable to obtain and maintain sufficient patent and other intellectual property protection for ATL001 and any future product candidates and technologies, our competitors could develop and commercialize products and technologies similar or equivalent to ours, and we may not be able to compete effectively in our market or successfully commercialize any product candidates we may develop;
- the current outbreak of novel coronavirus, or COVID-19, has caused, and could continue to cause, severe disruptions in the global economy and could seriously harm our development efforts, increase our costs and expenses and have a material adverse effect on our business, financial condition and results of operations;

- we qualify as a foreign private issuer and, as a result, we will not be subject to U.S. proxy rules and will be subject to reporting obligations under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that, to some extent, permit less detailed and frequent reporting than that of a U.S. domestic public company; and
- if we were classified as a passive foreign investment company, there could be material adverse U.S. federal income tax consequences to U.S. Holders.

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 Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- the ability to present only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's discussion and analysis of financial condition and results of operations" disclosure;
- exemption from the auditor attestation requirement in the assessment of our internal controls over financial reporting pursuant to the Sarbanes-Oxley Act; and
- an exemption from new or revised financial accounting standards until they would apply to private companies and from compliance with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation.

Generally, we may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company upon the earliest of: (i) the last day of our fiscal year during which we have total annual gross revenues of at least $1.07 billion; (ii) the date on which we are deemed to be a "large accelerated filer" under the Exchange Act which would occur if the market value of our ordinary shares (including in the form of ADSs) held by non-affiliates exceeds $700.0 million as of the last business day of our most recently completed second fiscal quarter; or (iii) the date on which we have, during the previous three year period, issued more than $1.0 billion of non-convertible debt.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this extended transition period and, as a result, we may adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-public companies instead of the dates required for other public companies.

We have taken advantage of certain reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold equity securities.

Implications of being a foreign private issuer

We are a foreign private issuer within the meaning of the rules under the Exchange Act. Our status as a foreign private issuer also exempts us from compliance with certain laws and regulations of the SEC and certain

regulations of The Nasdaq Stock Market. Consequently, even after we no longer qualify as an emerging growth company, we will not be subject to all of the disclosure requirements applicable to public companies organized within the United States. 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. In addition, our executive 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, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. public companies. Accordingly, there may be less publicly available information concerning our company than there is for U.S. public companies. Foreign private issuers are also exempt from the Regulation Fair Disclosure, aimed at preventing issuers from making selective disclosures of material information.

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

We may take advantage of these exemptions until such time as we no longer qualify as a foreign private issuer. We are required to determine our status as a foreign private issuer on an annual basis at the end of our second fiscal quarter. We will remain a foreign private issuer until such time that 50% or more of our outstanding voting securities are held by U.S. residents and any of the following three circumstances applies: (i) the majority of the members of board of directors or our executive officers are U.S. citizens or residents; (ii) more than 50% of our assets are located in the United States; or (iii) our business is administered principally in the United States.

We have taken advantage of certain of these reduced reporting and other requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold equity securities.

The offering

ADSs offered by us	9,750,000 ADSs, each representing one ordinary share.
Ordinary shares (including in the form of ADSs) to be outstanding immediately after this offering	40,621,751 ordinary shares (or 42,084,251 ordinary shares if the underwriters exercise their option to purchase additional ADSs in full).
Class A ordinary shares to be outstanding immediately after this offering	No Class A ordinary shares.
Underwriters' option to purchase additional ADSs	The underwriters have an option for a period of 30 days from the date of this prospectus to purchase up to 1,462,500 additional ADSs at the public offering price, less underwriting discounts and commissions.
American depositary shares	Each ADS represents one ordinary share, nominal value £0.001 per share. As a holder of ADSs, we will not treat you as one of our shareholders. The depositary, through its custodian, will be the holder of the ordinary shares underlying the ADSs, and you will have the rights of a holder of ADSs or beneficial owner (as applicable) as provided in the deposit agreement among us, the depositary and owners and holders of ADSs from time to time. To better understand the terms of the ADSs, see "Description of American depositary shares." We also encourage you to read the deposit agreement, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately $160.2 million, or $184.7 million if the underwriters exercise their option to purchase additional ADSs in full, based on the initial public offering price of $18.00 per ADS. We intend to use the net proceeds from this offering, together with our existing cash and cash equivalents to: (i) advance our cNeT programs for the treatment of advanced NSCLC and metastatic or recurrent melanoma through the completion of our ongoing Phase I/IIa clinical trials; (ii) advance our cNeT programs for the treatment of HNSCC and RCC and additional follow-on indications; (iii) fund the continued innovation, development and enhancement of our PELEUS bioinformatic platform and our VELOS manufacturing process; (iv) fund the continued automation and expansion of our manufacturing capabilities and capacity; and (v) for working capital and other general corporate purposes. See "Use of proceeds" for a more complete description of the intended use of proceeds from this offering.

Voting rights	Following the closing of this offering, we will have two classes of ordinary shares, ordinary shares and Class A ordinary shares. Holders of our ordinary shares will be entitled to one vote per share and the ordinary shares will not be convertible into any other class of our share capital. The Class A ordinary shares will not confer upon their holders any voting rights and each Class A ordinary share will be convertible at any time following the closing of this offering, at the election of the holder, into one ordinary share, subject to certain beneficial ownership limitations. The Class A ordinary shares, once converted to ordinary shares, may not be converted back to Class A ordinary shares. See "Description of share capital and articles of association—Ordinary shares" for more information on the rights of the holders of our ordinary shares and Class A ordinary shares.
Risk factors	See "Risk factors" beginning on page 15 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in the ADSs.
Depositary	The Bank of New York Mellon
Nasdaq Global Select Market trading symbol for the ADSs	"ACHL"

The number of ordinary shares (including in the form of ADSs) to be outstanding after this offering is based on 30,871,751 of our ordinary shares outstanding as of December 31, 2020 and excludes:

- 240,584 ordinary shares issuable upon the exercise of options for ordinary shares outstanding as of December 31, 2020, with a weighted average exercise price of $6.75 per share;
- 1,161,060 ordinary shares reserved for issuance under our 2020 Omnibus Plan, or the 2020 Omnibus Plan, as of December 31, 2020, which shares will no longer be reserved following this offering;
- 30,521 deferred shares outstanding as of December 31, 2020;
- 2,572,558 ordinary shares that will be made available for future issuance under our 2021 Omnibus Plan, or the 2021 Plan, which will become effective in connection with this offering; and
- 467,738 ordinary shares that will be made available for future issuance under our 2021 Employee Share Purchase Plan, or the ESPP, which will become effective in connection with this offering.

Unless otherwise indicated, all information contained in this prospectus reflects and assumes:

- the consummation of our corporate reorganization, which includes the conversion of all of our outstanding preferred shares in connection with our corporate reorganization;
- the filing and effectiveness of our amended and restated articles of association immediately prior to the completion of this offering;
- no issuances of Class A ordinary shares upon the closing of this offering;
- no issuance or exercise of outstanding options described above after December 31, 2020; and
- no exercise by the underwriters of their option to purchase up to 1,462,500 additional ADSs in this offering.

Summary consolidated financial data

The following tables present the summary consolidated financial data as of and for the years ended December 31, 2019 and 2020 for Achilles Therapeutics plc. We have derived the statement of operations and comprehensive loss data as of and for the years ended December 31, 2019 and 2020 from our audited financial statements appearing elsewhere in this prospectus. The summary consolidated financial data set forth below should be read together with our audited consolidated financial statements for years ended December 31, 2019 and 2020 and the related notes to those statements, as well as the sections of this prospectus captioned "Selected consolidated financial data" and "Management's discussion and analysis of financial condition and results of operations."

	Year ended December 31,	
(in thousands, except share and per share data)	**2019**	**2020**
Statement of Operations and Comprehensive Loss Data:		
Operating expenses:		
Research and development	$ 9,072	$ 22,629
General and administrative	4,703	11,098
Total operating expenses	13,775	33,727
Loss from operations	(13,775)	(33,727)
Other income (expense), net:		
Other income (expense)	(215)	531
Total other income (expense), net	(215)	531
Loss before provision for income taxes	(13,990)	(33,196)
Provision for income taxes	—	(3)
Net loss	(13,990)	(33,199)
Other comprehensive income:		
Foreign currency translation adjustment	8,504	4,213
Comprehensive loss	$ (5,486)	$ (28,986)
Net loss per share attributable to ordinary shareholders—basic and diluted[1]	$ (5.50)	$ (7.87)
Weighted average ordinary shares outstanding—basic and diluted[1]	2,542,520	4,219,823
Pro forma net loss per share attributable to ordinary shareholders—basic and diluted[2]	$ (21.79)	$ (31.14)
Pro forma weighted average ordinary shares outstanding—basic and diluted[2]	642,169	1,066,208
Supplemental pro forma net loss attributable to ordinary shareholders—basic and diluted[3]		$ (1.82)
Supplemental pro forma weighted average ordinary shares outstanding—basic and diluted[3]		18,200,429

(1) See Note 11 to our audited financial statements appearing elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share attributable to ordinary shareholders.

(2) The pro forma basic and diluted net loss per share to ordinary shareholders and pro forma weighted-average number of basic and diluted ordinary shares for the years ended December 31, 2019 and 2020, give effect to the one-for-0.2526 reverse share split of all ordinary shares except for N ordinary shares, and the one-for-0.1792 reverse share split of N ordinary shares, to be effected immediately prior to and conditional on the completion of this offering, but do not give effect to the conversion of all of Achilles Therapeutics plc's outstanding convertible preferred shares into ordinary shares. Such pro forma data will become the historical net loss per share attributable to ordinary shares, basic and diluted, of Achilles Therapeutics plc upon consummation of the corporate reorganization.

(3) The supplemental pro forma basic and diluted net loss per share to ordinary shareholders and pro forma weighted-average number of basic and diluted ordinary shares for the year ended December 31, 2020 give effect the reverse share split as if the conversion of all outstanding convertible preferred shares had occurred at the later of January 1, 2020 or the issuance dates of the preferred shares; further, the shares to be sold in the form of ADSs in this offering are excluded from the unaudited pro forma basic and diluted loss per share to ordinary shareholders and unaudited pro forma weighted-average number of basic and diluted ordinary shares for the year ended December 31, 2020.

	As of December 31, 2020		
(in thousands)	**Actual**	**Pro forma[1]**	**Pro forma as adjusted[2]**
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$177,849	$ 177,849	$ 338,193
Total assets	218,918	218,918	378,255
Working capital[3]	171,174	171,174	331,518
Total liabilities	29,546	29,546	28,668
Preferred shares	134	—	—
Ordinary shares	25	159	210
Additional paid-in capital	234,903	234,903	395,067
Accumulated deficit	(58,012)	(58,012)	(58,012)
Total shareholders' equity	189,372	189,372	349,587

(1) The pro forma balance sheet data give effect to our corporate reorganization. Please see "Corporate reorganization" beginning on page 107 for more information.

(2) The pro forma as adjusted balance sheet data give further effect to the issuance and sale of ADSs in this offering by us at the initial public offering price of $18.00 per ADS, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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

The representative exchange rates for the last day of the years ended December 31, 2019 and 2020 were £1.00 = $1.327 and £1.00 = $1.365, respectively.

Risk factors

Investing in the ADSs involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with the other information in this prospectus, including our consolidated financial statements and the related notes appearing at the end of this prospectus and in the section titled "Management's discussion and analysis of financial condition and results of operations," before deciding whether to invest in the ADSs. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of the ADSs could decline and you may lose all or part of your investment. The material and other risks and uncertainties summarized above and described below are not intended to be exhaustive and are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See the section titled "Special note regarding forward-looking statements."

Risks related to our financial position and capital needs

Risks related to our financial condition

We have incurred significant losses since inception, and we expect to incur losses over the next several years and may not be able to achieve or sustain revenues or profitability in the future.

Investment in biopharmaceutical product development is a highly speculative undertaking and entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval and become commercially viable. We are still in the early stages of development of ATL001 for our lead indications in advanced non-small cell lung cancer, or NSCLC, and metastatic or recurrent melanoma. We have no products approved for commercial sale and have not generated any revenue from product sales to date, and we continue to, and will for the foreseeable future, incur significant research and development and other expenses related to our ongoing operations. We have financed our operations primarily through private placements of our preferred shares.

We have incurred significant operating losses in each period since our inception in May 2016. For the years ended December 31, 2019 and 2020, we reported net losses of $14.0 million and $33.2 million, respectively. As of December 31, 2020, we had an accumulated deficit of $58.0 million. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase substantially in connection with our ongoing activities, particularly if and as we:

- continue to develop our pipeline of discovery programs and conduct research and clinical activities for our existing programs for advanced NSCLC, metastatic or recurrent melanoma and other solid tumors;
- continue to innovate, improve and develop our technology platform, including continuing to develop and improve our PELEUS bioinformatic platform and VELOS manufacturing process and to evaluate new approaches to our manufacturing process;
- expand our Material Acquisition Platform, or MAP, network to increase our network of clinical sites;
- advance the development of our current programs, additional follow-on indications and any future product candidates into additional solid tumor indications;

- maintain, expand and protect our intellectual property portfolio;
- seek marketing approvals and complete any post-marketing studies, if required, for any of our product candidates that successfully complete clinical trials, if any;
- acquire or in-license additional product candidates and technologies;
- expand our infrastructure and facilities to accommodate our growing employee base and ongoing development activity;
- continue to improve our manufacturing process to create a fully closed end-to-end manufacturing process;
- expand our manufacturing infrastructure and facilities to support the manufacture of larger quantities of our product candidates for clinical development and potential commercialization globally;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- add operational, financial and management information systems and personnel, including personnel to support our research and development programs, any future commercialization efforts and our transition to operating as a public company following the completion of this offering; and
- incur additional legal, accounting and other expenses in operating our business, including the additional costs associated with operating as a public company.

Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses we will incur or when, if ever, we will be able to achieve profitability. Even if we succeed in commercializing one or more product candidates, we will continue to incur substantial research and development and other expenditures to develop and market additional programs and product candidates and we may never generate revenue that is significant or large enough to achieve profitability. We may also encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our shareholders' equity and working capital.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Accordingly, our failure to become and remain profitable would decrease the value of the company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company and/or the market price of our ADSs could also cause you to lose all or part of your investment.

We have not generated any revenue and may never be profitable.

Our ability to become profitable depends upon our ability to generate revenue. To date, we have not generated any revenue from ATL001 for any indication. We do not expect to generate significant revenue from ATL001 and any potential future product candidates unless or until we successfully complete clinical development and obtain regulatory approval of, and then successfully commercialize, such product candidates. ATL001 and any other product candidates that we develop will require additional research, clinical development, regulatory review and approval, substantial investment, access to sufficient commercial manufacturing capacity and

significant marketing efforts before we can generate any revenue from product sales. Our ability to generate revenue depends on a number of factors, including, but not limited to:

- timely completion of our research activities and clinical trials, which may be significantly slower or cost more than we currently anticipate;
- our ability to develop ATL001 for our current pipeline of indications and additional follow-on indications as well as to identify and develop potential new product candidates;
- our ability to complete IND-enabling activities, and successfully submit INDs or comparable applications for ATL001 in additional follow-on indications or any future product candidates;
- our successful initiation, enrollment in and completion of clinical trials, including our ability to generate positive data from any such clinical trials, including our ongoing Phase I/IIa clinical trials of ATL001 in advanced NSCLC and metastatic or recurrent melanoma;
- whether we are required by the U.S. Food and Drug Administration, or the FDA, the European Medicines Agency, or the EMA, or the United Kingdom Medicines and Healthcare products Regulatory Agency, or the MHRA, or similar foreign regulatory authorities to conduct additional clinical trials or other studies beyond those planned to support the approval and commercialization of ATL001 in our current indications or any follow-on indications as well as any future product candidates;
- our ability to demonstrate to the satisfaction of the FDA, the EMA, the MHRA and similar foreign regulatory authorities the safety, potency, purity, efficacy and acceptable risk to benefit profile of our current programs, additional follow-on indications for ATL001, or any future product candidates and such regulatory authorities' acceptance of our precision clonal neoantigen-reactive T cell, or cNeT, based development strategy;
- the prevalence, duration and severity of potential side effects or other safety issues experienced with our current programs, additional follow-on indications for ATL001, or future product candidates, if any;
- our ability to receive marketing approvals from the FDA, the EMA, the MHRA and similar foreign regulatory authorities;
- the willingness of physicians, operators of clinics and patients to utilize or adopt ATL001 or future product candidates, if approved, over alternative or more conventional approaches, such as standard tumor infiltrating lymphocyte, or TIL, therapy and other immuno-oncology therapies;
- the actual and perceived availability, cost, risk profile and safety and efficacy of our product candidates, if approved, relative to existing and future alternative immuno-oncology therapies and competitive product candidates and technologies;
- our ability to successfully increase our MAP network, including the acquisition, transportation, handling of, and management of other logistics relating to, patient tumor samples;
- our ability and the ability of third parties with whom we may contract to manufacture adequate clinical and commercial supplies of our product candidates or any future product candidates, remain in good standing with regulatory authorities and develop, validate and maintain commercially viable manufacturing processes that are compliant with current good manufacturing practices, or cGMP, requirements;
- our ability to successfully develop a commercial strategy and thereafter commercialize our current programs, additional follow-on indications for ATL001, or any future product candidates in the United States and internationally, if approved for marketing, reimbursement, sale and distribution in such countries and territories, whether alone or in collaboration with others;

- patient demand for our current programs, additional follow-on indications for ATL001, and any future product candidates, if approved;
- our ability to establish and enforce intellectual property rights; and
- our ability to maintain a continued acceptable safety profile in any approved product candidate.

Many of the factors listed above are beyond our control and could cause us to experience significant delays or prevent us from obtaining regulatory approvals or commercializing our product candidates. Even if we are able to commercialize our product candidates, we may not achieve profitability soon after generating product sales, if ever. If we are unable to generate sufficient revenue through the sale of our product candidates or any future product candidates, we may be unable to continue operations without continued funding.

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

We are a clinical-stage company with a limited operating history. We commenced operations in May 2016, and our operations to date have been limited to organizing and staffing our company, business planning, raising capital, conducting discovery and research activities, filing patent applications, identifying potential product candidates, undertaking research activities and clinical trials and establishing our in-house manufacturing capabilities for the manufacture of initial quantities of our product candidates and component materials. Our lead programs in advanced NSCLC and metastatic or recurrent melanoma are in Phase I/IIa clinical trials, CHIRON and THETIS, respectively. We have not yet demonstrated our ability to successfully complete any clinical trials, obtain marketing approvals, manufacture a commercial-scale product or arrange for a third party to do so on our behalf, or conduct sales, marketing and distribution activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as an early-stage company, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We expect our financial condition and results of operations to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

Risks related to our future cash needs

Even if we consummate this offering, we will need substantial additional funding to achieve our goals, and a failure to raise additional capital when needed on acceptable terms, or at all, could force us to delay, reduce or eliminate our product development programs or commercialization efforts.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities for our PELEUS platform, our VELOS manufacturing process, development of our lead programs for ATL001 and identification and development of follow-on indications for ATL001. Clinical trials and additional research and development activities will require substantial funds to complete. We expect our expenses to increase in parallel with our ongoing activities, particularly as we continue the research and clinical development activities of our current programs, including our ongoing Phase I/IIa clinical trials of ATL001 in advanced NSCLC and metastatic or recurrent melanoma, and our ongoing and planned IND-enabling activities

for ATL001 in follow-on indications. In addition, if we obtain marketing approval for any product candidate, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, upon the closing of this offering, we expect to incur significant additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. Additionally, changing circumstances may cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. We cannot be certain that additional funding will be available on acceptable terms, or at all. Until such time, if ever, as we can generate substantial product revenue, we expect to finance our operations through a combination of public or private equity offerings, debt financings, governmental funding, collaborations, strategic partnerships and alliances or marketing, distribution or licensing arrangements with third parties. If we are unable to raise capital when needed in sufficient amounts or on terms acceptable to us, we would be forced to delay, reduce or eliminate our discovery and research programs or any future commercialization efforts.

We had cash and cash equivalents of $177.8 million as of December 31, 2020. We estimate that our net proceeds from this offering will be $160.2 million, based on the initial public offering price of $18.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We believe that, based upon our current operating plan, our existing capital resources, together with the net proceeds from this offering will be sufficient to fund our anticipated operations for at least the next 24 months. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. In addition, because the design and outcome of our ongoing, planned and anticipated clinical trials are highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of any product candidate. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of research activities and clinical trials for our current programs, additional follow-on indications for ATL001 and any future product candidates, including any additional expenses attributable to adjusting our development plans in response to the COVID-19 pandemic;
- the continued development and expansion of our PELEUS platform;
- the continued development of and improvements to our VELOS manufacturing process;
- the extent to which we enter into collaboration arrangements with regard to product candidate development or acquire or in-license products or technologies;
- the costs, timing and outcome of regulatory review of ATL001 for our current programs and follow-on programs, and any future product candidates, including post-marketing studies that could be required by regulatory authorities;
- the costs of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any product candidate for which we receive marketing approval;
- the costs of continued scale-up and automation of our VELOS manufacturing processes, including developing a fully closed end-to-end system, for later stages of development and commercialization;
- the costs associated with continuing to increase our MAP network;
- revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval; and

- the costs of preparing, filing and prosecuting patent applications, obtaining, maintaining, enforcing and protecting our intellectual property rights and defending intellectual property-related claims.

Identifying additional follow-on indications for ATL001 and future product candidates and conducting research activities and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, any product candidate, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. 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.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay, or discontinue our research and development programs or any commercialization efforts; be unable to expand our operations; or be unable to otherwise capitalize on our business opportunities, as desired, which could harm our business and potentially force us to discontinue operations.

Raising additional capital may cause dilution to our shareholders, including purchasers of ADSs in this offering, may restrict our operations or require us to relinquish rights to our technologies or product candidates.

We expect our expenses to increase in connection with our planned operations. Unless and until we can generate a substantial amount of revenue from our product candidates, we expect to finance our future cash needs through public or private equity offerings, debt financings, collaborations, licensing arrangements or other sources, or any combination of the foregoing. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans.

To the extent that we raise additional capital through the sale of ADSs, convertible securities or other equity securities, your ownership interest may be diluted, and the terms of these securities could include liquidation or other preferences and anti-dilution protections that could adversely affect your rights as a shareholder.

In addition, debt financing, if available, may result in fixed payment obligations and may involve agreements that include restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures, creating liens, redeeming shares or declaring dividends, that could adversely impact our ability to conduct our business. In addition, securing financing could require a substantial amount of time and attention from our management and may divert a disproportionate amount of their attention away from day-to-day activities, which may adversely affect our management's ability to oversee the development of our current programs, additional follow-on indications for ATL001, and any future product candidates.

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

Risks related to the development of our programs

Risks related to research activities and clinical development

We are early in our development efforts. Our business is dependent on the successful development of ATL001 and future product candidates. If we are unable to advance our current programs, additional follow-on

indications for ATL001 or any future product candidates into and through clinical trials, obtain marketing approval and ultimately commercialize some, any or all of the product candidates we develop, or experience significant delays in doing so, our business will be materially harmed.

All of our programs are in early stages of development, including our clinical-stage programs for ATL001 in advanced NSCLC and metastatic or recurrent melanoma, and as such will require extensive research activities and clinical testing, as applicable. Our ability to generate product revenues, which we do not expect to occur for several years, if ever, will depend heavily on the successful development and eventual commercialization of the programs and product candidates we develop, which may never occur. Before we are able to generate any revenues from product sales, our current programs, additional follow-on indications for ATL001 or any future product candidates we develop, will require additional research activities and clinical development, management of clinical, research and manufacturing activities, marketing approval in the United States and other markets, demonstrating effectiveness to pricing and reimbursement authorities, obtaining sufficient manufacturing supply for both clinical development and commercial production, building of a commercial organization, and substantial investment and significant marketing efforts. The success of our current programs, additional follow-on indications for ATL001 or any future product candidates will depend on several factors, including the following:

- successful completion of research activities and clinical trials;
- sufficiency of our financial and other resources to complete the necessary research activities and clinical trials;
- regulatory authority acceptance of INDs, clinical trial applications or similar approaches required for us to commence our planned clinical trials or future clinical trials;
- successful patient enrollment in and completion of our ongoing and future clinical trials;
- successful data from our clinical trials that support an acceptable risk-benefit profile of our product candidates in the intended populations;
- receipt and maintenance of marketing approvals from applicable regulatory authorities;
- continued scale-up and automation of our VELOS manufacturing processes, including developing a fully closed end-to-end system, for later stages of development and commercialization;
- obtaining and maintaining patent and trade secret protection or regulatory exclusivity for our product candidates;
- establishing sales, marketing and distribution capabilities and launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- entry into collaborations to further the development of our product candidates, if necessary;
- successfully launching commercial sales of our product candidates, if and when approved;
- acceptance of our product candidates, if and when approved, by patients, the medical community and third-party payors;
- the prevalence and severity of adverse events experienced with our product candidates;
- effectively competing with other cancer therapies;
- obtaining and maintaining healthcare coverage and adequate reimbursement from third-party payors;

- maintaining a continued acceptable safety profile of our products following approval, if any; and
- qualifying for, maintaining, enforcing and defending intellectual property rights and claims.

We do not have complete control over many of these factors, including certain aspects of clinical development and the regulatory approval process, potential threats to our intellectual property rights and the manufacturing, marketing, distribution and sales efforts of any future collaborator. If we are not successful with respect to one or more of these factors in a timely manner or at all, we could experience significant delays or be unable to successfully commercialize ATL001 and any future product candidates we develop, which would materially harm our business.

Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future clinical trial results. We may encounter substantial delays in clinical trials, or may not be able to conduct or complete clinical trials on the expected timelines, if at all. If our research activities and clinical trials are not sufficient to support regulatory development and approval of some, all or any of our programs for ATL001 or any future product candidates, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development of such program or product candidate.

Before obtaining marketing approval from the FDA or other comparable foreign regulatory authorities for the sale of our product candidates, we must complete preclinical development and extensive clinical trials to demonstrate the safety, purity and potency of our product candidates. Clinical testing is expensive, time-consuming and subject to uncertainty. Clinical data are often susceptible to varying interpretations and analyses and many companies that believed their product candidates performed satisfactorily in clinical trials nonetheless failed to obtain FDA approval or approval from foreign regulatory authorities. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier studies, and any such setbacks in our clinical development could have a material adverse effect on our business and operating results. It is impossible to predict when or if ATL001 in any of our current programs, ATL001 in any additional follow-on indications or any future product candidates will prove effective and safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete research activities and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical development testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. There can be no assurance that any of our current or future clinical trials will ultimately be successful or support further clinical development of any of our product candidates. There is a high failure rate for investigational drugs proceeding through clinical trials.

We may experience delays in initiating or completing research activities or clinical trials, including as a result of delays in obtaining, or failure to obtain, the FDA's clearance to initiate clinical trials under future INDs, completing ongoing research activities for our other product candidates and initiating our planned clinical trials. Additionally, we cannot be certain that clinical trials will begin on time, not require redesign, enroll an adequate number of subjects on time, or be completed on schedule, if at all. We may experience numerous adverse or unforeseen events during, or as a result of, research activities and clinical trials that could delay or prevent our ability to receive marketing approval or commercialize ATL001 for any indication or any future product candidates, including:

- we may receive feedback from regulatory authorities that requires us to modify the design of our clinical trials;

- research activities or clinical trials of ATL001 or any future product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon our research efforts for our other product candidates;
- research activities or clinical trials of ATL001 or any future product candidates may not produce differentiated or clinically significant results across cancers and we may decide not to pursue for further clinical development;
- the number of patients required for clinical trials of ATL001 or any future product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of our clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements, fail to maintain adequate quality controls or be unable to provide us with sufficient product supply to conduct and complete clinical trials of ATL001 or any future product candidates in a timely manner, or at all;
- we or our investigators might have to suspend or terminate clinical trials of ATL001 or any future product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of ATL001 or any future product candidates may be greater than we anticipate;
- the quality of our product candidates or other materials necessary to conduct research activities or clinical trials of ATL001 or any future product candidates may be insufficient or inadequate, and our PELEUS platform may not be able to accurately identify clonal neoantigens that are effective to treat solid tumors;
- reports from clinical testing of other therapies may raise safety or efficacy concerns about ATL001 or any future product candidates;
- regulators may revise the requirements for approving ATL001 or any future product candidates, or such requirements may not be as we anticipate; and
- future collaborators may conduct clinical trials in ways they view as advantageous to them but that are suboptimal for us.

In addition, disruptions caused by the COVID-19 pandemic may increase the likelihood that we encounter such difficulties or delays in initiating, enrolling, conducting or completing our planned and ongoing clinical trials. If we are required to conduct additional clinical trials or other testing of our current programs, additional follow-on indications for ATL001 or any future product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials or other testing, if the results of these trials or tests are not positive or are only moderately positive or if there are safety concerns, our business and results of operations may be adversely affected and we may incur significant additional costs.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the institutional review boards, or IRBs, or ethics committees of the institutions in which such clinical trials are being conducted, or by the FDA or other regulatory authorities, or suspended or terminated based on recommendations by the Data Safety Monitoring Board, if any, for such clinical trial. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical trial protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse

side effects, failure to demonstrate a benefit from the product candidates, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

If we experience delays in the completion, or termination, of any clinical trial for our current programs, additional follow-on indications for ATL001 or of any future product candidates, the commercial prospects of ATL001 or our any future product candidates may be harmed, and our ability to generate revenues from ATL001 or any future product candidates will be delayed or not realized at all. In addition, any delays in completing our research activities or clinical trials may increase our costs, slow down our development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of ATL001 or any future product candidates. If ATL001 or any future product candidates are generally observed to be ineffective, unsafe or commercially unviable, our entire pipeline may have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our business is highly dependent on the success of our product candidate, ATL001, which was developed based on our PELEUS platform and utilizing our VELOS manufacturing process. All of our future product candidates are based, or will be based, on the same technologies and the failure of ATL001 may adversely affect their development.

A key element of our strategy is utilizing our PELEUS platform to identify clonal neoantigens that are effective in treating solid tumors coupled with using our VELOS manufacturing process to manufacture cNeT. The therapeutic discovery activities that we are conducting may not be successful in identifying clonal neoantigens and we may not be successful in manufacturing precision TIL product candidates. We currently have no products that are approved for commercial sale and may never be able to develop marketable products. We are very early in our development efforts, and we only have two clinical-stage programs, ATL001 for the treatment of advanced NSCLC and metastatic or recurrent melanoma, which are in early clinical-stage trials. In the event that our current programs for ATL001, additional follow-on indications for ATL001 or future product candidates encounter safety or efficacy problems, developmental delays, regulatory issues, or other problems, our development plans and business related to our other current or future product candidates could be significantly harmed. A failure of ATL001 or future product candidates may affect the ability to obtain regulatory approval to continue or conduct clinical programs for our other or future product candidates.

Our research activities and clinical trials may fail to demonstrate adequately the safety, potency and purity ATL001 or any future product candidates, which would prevent or delay development, regulatory approval and commercialization.

Before obtaining regulatory approvals for the commercial sale of any product candidate, including ATL001, we must demonstrate through lengthy, complex and expensive research activities and clinical trials that our product candidates are both safe and effective for use in each target indication. Research activities and clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial processes, and, because ATL001 is in an early stage of development, there is a high risk of failure and we may never succeed in developing marketable products.

Any clinical trials that we may conduct may not demonstrate the safety, potency, purity and efficacy necessary to obtain regulatory approval to market our product candidates. If the results of our ongoing or future clinical trials are inconclusive with respect to the safety, potency, purity and efficacy of our product candidates, if we do not meet the clinical endpoints with statistical and clinically meaningful significance, or if there are safety

concerns associated with our product candidates, we may be prevented or delayed in obtaining marketing approval for such product candidates. In some instances, there can be significant variability in safety, potency or purity results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, manufacturing variances in our VELOS manufacturing process, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols and the rate of dropout among clinical trial participants.

Additionally, our currently ongoing Phase I/IIa clinical trials are and any additional clinical trials that we may conduct may be open-label in study design and may be conducted at a limited number of clinical sites on a limited number of patients. An “open-label” clinical trial is one where both the patient and investigator know whether the patient is receiving the investigational product candidate or either an existing approved drug or placebo. Most typically, open-label clinical trials test only the investigational product candidate and sometimes may do so at different dose levels. Open-label clinical trials are subject to various limitations that may exaggerate any therapeutic effect, as patients in open-label clinical trials are aware when they are receiving treatment. Open-label clinical trials may be subject to a “patient bias” where patients perceive their symptoms to have improved merely due to their awareness of receiving an experimental treatment. In addition, open-label clinical trials may be subject to an “investigator bias” where those assessing and reviewing the physiological outcomes of the clinical trials are aware of which patients have received treatment and may interpret the information of the treated group more favorably given this knowledge. The results from an open-label trial may not be predictive of future clinical trial results with any of our product candidates for which we include an open-label clinical trial when studied in a controlled environment with a placebo or active control.

ATL001 or any of our future product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, require expansion of the trial size, limit their commercial potential, or result in significant negative consequences.

Undesirable side effects caused by our product candidates could cause us or regulatory authorities, including IRBs, to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, the EMA, the MHRA or other comparable foreign regulatory authorities. For example, in our ongoing trials, two patients were considered by the investigator to have experienced immune effector cell-associated neurotoxicity syndrome, or ICANS. The investigator deemed the first serious adverse event to be related to ATL001. This patient was treated with dexamethasone and tocilizumab and their acute condition improved. However, the nature of this therapeutic intervention would be expected to suppress the expansion and persistence of the infused ATL001. Subsequent to this, the patient was admitted to hospice, and subsequently died, due to cancer disease progression. The second patient experienced neurological symptoms that worsened 109 days after administration of ATL001. The event was deemed a possible ICANS event. The patient also continued to experience disease progression and was ultimately put on end of life care and medical treatment was ceased, with the ICANS (grade 5) remaining unresolved at the time of death. While we have not seen additional instances of ICANS in our trials, patients may experience future serious adverse events which could halt clinical the trials. The FDA or comparable foreign regulatory authorities, or IRBs and other reviewing entities, may also require, or we may voluntarily develop, strategies for managing adverse events during clinical development, which could include restrictions on our enrollment criteria, the use of stopping criteria, adjustments to a study’s design, reconsent of enrolled patients, or the monitoring of safety data by a data monitoring committee, among other strategies. FDA or a comparable foreign regulatory authority requests for additional data or information could also result in substantial delays in the approval of our current product candidate and any future product candidates. Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of subjects, rare and severe side effects of our product candidates may only be uncovered with a significantly larger number of patients exposed to the product candidate. Additionally, results of our clinical trials could reveal a high and unacceptable severity and

prevalence of side effects or unexpected characteristics, which may stem from our therapies specifically or may be due to an illness from which the clinical trial subject is suffering. If we do observe severe side effects in our clinical trials, our ongoing clinical trials may be halted or put on clinical hold prior to completion if there is an unacceptable safety risk for patients.

If unacceptable toxicities arise in the development of ATL001 or any future product candidates, we could suspend or terminate our clinical trials or the FDA, the EMA, the MHRA or comparable foreign regulatory authorities, or local regulatory authorities such as IRBs or ethics committees, could order us to cease clinical trials. Competent national health authorities, such as the FDA or foreign equivalents, could also deny approval of our product candidates for any or all targeted indications. Even if the side effects presented do not preclude the product from obtaining or maintaining marketing approval, treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. We expect to have to train medical personnel using our product candidates to understand the adverse events associated with our treatment approach for both our planned clinical trials and upon any commercialization of any product candidates, if approved. Inadequate training in recognizing or managing the potential side effects of ATL001 or any future product candidates could result in patient deaths. Any of these occurrences may significantly harm our reputation, business, financial condition and prospects.

Interim, "topline," 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 publicly disclose preliminary or topline data from our clinical trials, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the topline or preliminary results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline 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, topline data should be viewed with caution until the final data are available. From time to time, we may also disclose interim 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 or as patients from our clinical trials continue other treatments for their disease. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects. Further, disclosure of interim data by us or by our competitors could result in volatility in the price of the ADSs after this offering.

If the interim, topline, or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed, which could harm our business, operating results, prospects or financial condition. In addition, the information we choose to publicly disclose regarding a particular clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

Identifying and qualifying patients to participate in clinical trials of ATL001 and our future product candidates is critical to our success. The timing of completion of our clinical trials depends in part on the speed at which we can recruit patients to participate in testing ATL001 and any future product candidates, and we may experience delays in our clinical trials if we encounter difficulties in enrollment or patient retention due to other unforeseen factors, including impacts that have resulted or may result from the COVID-19 pandemic. We may not be able to initiate or continue clinical trials for ATL001 or any future product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar foreign regulatory authorities outside the United States. For example, the evolving COVID-19 pandemic may continue to impact our ability to initiate clinical sites and recruit, enroll and retain patients or may divert healthcare resources away from clinical trials. The enrollment of patients further depends on many factors, including:

- the patient eligibility criteria defined in the clinical trial protocol;
- the size of the patient population required for analysis of the clinical trial's primary endpoints;
- the severity of the disease or condition under investigation;
- the proximity of patients to clinical trial sites;
- the design of the clinical trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- our ability to obtain and maintain patient consents;
- the availability of competing trials;
- our ability to procure sufficient tumor and blood samples from the patient to enable isolation of sufficient TILs and dendritic cells to manufacture a cNeT product candidate, identify clonal neoantigens and transport our cNeT product candidate to the trial site;
- our ability to monitor patients adequately during and after treatment;
- the risk that patients enrolled in clinical trials will drop out of the clinical trials before the manufacturing and infusion of ATL001 or any future product candidates or clinical trial completion; and
- factors we may not be able to control, such as current or potential pandemics that may limit patients, principal investigators or staff or clinical site availability.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as ATL001 or any future product candidates, and this competition will reduce the number and types of patients available to us because some patients who might have opted to enroll in our clinical trials may instead opt to enroll in a clinical trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such clinical trial sites. Moreover, because our product candidates represent a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, such as chemotherapy, rather than enroll patients in any ongoing or planned clinical trials.

Delays in completing patient enrollment may result in increased costs or may affect the timing or outcome of our ongoing and planned clinical trials, which could prevent completion or commencement of these clinical trials and adversely affect our ability to advance the development of our product candidates.

Since the number of patients that we plan to dose in our ongoing open-label Phase I/IIa clinical trials is small, the results from these clinical trials, once completed, may be less reliable than results achieved in larger clinical trials, which may hinder our efforts to obtain regulatory approval for ATL001 or any future product candidates.

In our ongoing first-in-human, open-label Phase I/IIa clinical trials of ATL001 for our two lead tumor indications, we are evaluating the safety, tolerability and clinical activity of cNeT administered intravenously in adult patients with advanced NSCLC and metastatic or recurrent melanoma.

The results of clinical trials with smaller sample sizes, such as our ongoing Phase I/IIa clinical trials, can be disproportionately influenced by various biases associated with the conduct of small clinical trials, such as the potential failure of the smaller sample size to accurately depict the features of the broader patient population, which limits the ability to generalize the results across a broader community, thus making the clinical trial results less reliable than clinical trials with a larger number of patients. As a result, there may be less certainty that such product candidate would achieve a statistically significant effect in any future clinical trials. If we conduct any future clinical trials of ATL001, we may not achieve a statistically significant result or the same level of statistical significance, if any, that we might have anticipated based on the results observed in our initial Phase I/IIa clinical trials.

We are conducting clinical trials for product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

While we plan to expand our clinical operations to the United States and Europe in 2021, we are currently conducting our clinical trials only in the United Kingdom. The acceptance of data from clinical trials conducted outside the United States or another jurisdiction by the FDA or comparable foreign regulatory authority may be subject to certain conditions or may not be accepted at all. In cases where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless: (i) the data are applicable to the U.S. population and U.S. medical practice; (ii) the trials were performed by clinical investigators of recognized competence and pursuant to good clinical practice, or GCP, regulations; and (iii) the FDA is able to validate the data from the study through an on-site inspection if necessary. In general, the patient population for any clinical trials conducted outside the United States must be representative of the population for whom we intend to label the product candidate in the United States. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical powering, must be met. Many foreign regulatory authorities have similar approval requirements. In addition, such foreign trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any comparable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which could be costly and time-consuming, and which may result in product candidates that we may develop not receiving approval for commercialization in the applicable jurisdiction.

Risks related to our approach to product development

Our approach to the identification and manufacture of product candidates represents a novel approach to cancer treatment, which creates significant challenges for us.

A key element of our strategy is to focus on targeting clonal neoantigens for the treatment of solid tumors, to continue innovating and developing our PELEUS platform to further improve our clonal neoantigen prediction capability and to expand our pipeline into several additional solid tumor indications. To date, there are no approved immuno-oncology therapies based on targeting clonal neoantigens and we are not aware of any clinical evidence supporting the clinical efficacy of our approach. Although our research and development efforts to date have resulted in clinical development of ATL001 in advanced NSCLC and metastatic or recurrent melanoma, ATL001 may not be safe or effective as a cancer treatment, and we may not be able to identify any additional follow-on indications for ATL001 or identify and develop any other product candidates. Further, our approach to manufacturing cNeT on a per patient basis means that we may fail to isolate TILs from the tumor, be unable to generate the necessary amounts of dendritic cells, or at all, or not be able to identify clonal neoantigens. We may also be limited by the extent to which the peptides representing those neoantigens are presented by dendritic cells. There is high variability in sample collection between patients, which presents additional challenges of producing cNeT on a per patient basis. Generation of any cellular therapy, including our cNeT, to specifically target the mutations of an individual patient requires several weeks, in part reflecting the need to generate patient-specific genomic data and perform the bioinformatic analyses prior to initiation of manufacture. During the period from procurement of tumor and blood to completion of manufacturing, patients continue to receive standard of care therapies. In cases where disease progression is rapid, clinical deterioration of a patient's condition during the manufacturing period may mean that the patient is no longer able to receive our cNeT. The continued improvement of our PELEUS platform also requires continued sourcing of tumor samples from the TRACKing Cancer Evolution through Therapy study, or the TRACERx Study, and our MAP network, and any interruption or termination of these programs would adversely affect our PELEUS platform. Though we are continuing to invest in optimizing our manufacturing process, there is no guarantee that our efforts will result in a decrease of the end-to-end time for production.

Even if we are successful in expanding our pipeline of ATL001 programs and other product candidates, the follow-on programs and product candidates that we identify may not be suitable for clinical development or generate acceptable clinical data, including as a result of being shown to have unacceptable toxicity or other characteristics that indicate that they are unlikely to be products that will receive marketing approval from the FDA or other regulatory authorities or achieve market acceptance. We may face challenges in obtaining regulatory approval for ATL001 or any future product candidate, as the FDA and other regulatory authorities may have limited experience with bioinformatics-based therapies for cancer treatment. If we do not successfully develop and commercialize product candidates, we will not be able to generate product revenue in the future, which likely would result in significant harm to our financial position and adversely affect our commercial value.

Moreover, physicians, hospitals and third-party payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. Treatment centers may not be willing or able to devote the personnel and establish other infrastructure required for the administration of our therapies. Based on these and other factors, health systems, hospitals and payors may decide that the benefits of this new therapy do not or will not outweigh its costs.

We anticipate that ATL001 and any future product candidates may be used in combination with third-party drugs or biologics, some of which are still in development, and we have limited or no control over the supply, regulatory status, or regulatory approval of such drugs.

ATL001 and any future product candidates have the potential to be administered in combination with approved therapeutics, such as checkpoint inhibitor immunotherapies. Our ability to develop and ultimately commercialize ATL001 and any future product candidates used in combination with checkpoint inhibitor immunotherapies or other therapeutics will depend on our ability to access such therapeutics on commercially reasonable terms for the clinical trials and their availability for use with the commercialized product, if approved.

Any failure to maintain or enter into new successful commercial relationships, or the expense of purchasing checkpoint inhibitor immunotherapies or other comparable therapies in the market, may delay our development timelines, increase our costs and jeopardize our ability to develop our current product candidate and any future product candidates as commercially viable therapies. If any of these occur, our business, financial condition, results of operations, share price and prospects may be materially harmed.

Moreover, the development of product candidates for use in combination with another product or product candidate may present challenges that are not faced for single agent product candidates. We may develop ATL001 and any future product candidates for use in combination with checkpoint inhibitor immunotherapies. Both of our THETIS and CHIRON clinical trials may seek to evaluate the safety and clinical activity of ATL001 when given in combination with, pembrolizumab and nivolumab, respectively, which are approved anti-PD-1 antibody therapies. The FDA or comparable foreign regulatory authorities may require us to use more complex clinical trial designs in order to evaluate the contribution of each product and product candidate to any observed effects. It is possible that the results of such trials could show that any positive previous trial results are attributable to the combination therapy and not ATL001 and any future product candidates. Moreover, following product approval, the FDA or comparable foreign regulatory authorities may require that products used in conjunction with each other be cross labeled for combined use. To the extent that we do not have rights to the other product, this may require us to work with a third party to satisfy such a requirement. Moreover, developments related to the other product may impact our clinical trials for the combination as well as our commercial prospects should we receive marketing approval. Such developments may include changes to the other product's safety or efficacy profile, changes to the availability of the approved product, quality, manufacturing and supply issues, and changes to the standard of care.

In the event that any future collaborator or supplier cannot continue to supply their products on commercially reasonably terms, we would need to identify alternatives for accessing checkpoint inhibitor immunotherapies or other comparable therapies. Additionally, should the supply of product from any future collaborator or supplier be interrupted, delayed or otherwise be unavailable to use or our collaborators, our clinical collaborations may be delayed. In the event we are unable to source an alternative supply, or are unable to do so on commercially reasonable terms, our business, financial conditions, results of operations and prospects may be materially harmed.

We may expend our limited resources to pursue a particular follow-on indication for ATL001 or other product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we must focus on a limited number of research programs and product candidates and on specific indications. 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 commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial

products or profitable market opportunities. Our spending on current and future discovery and research programs and product candidates for specific indications may not yield any commercially viable products.

Risks related to manufacturing and supply

We have no experience manufacturing ATL001 at commercial scale. Manufacturing and administering ATL001 is complex and we may encounter difficulties in production, particularly with respect to scaling up our manufacturing capabilities. If we encounter such difficulties, our ability to provide supply of our cNeT for clinical trials or for commercial purposes could be delayed or stopped.

ATL001 is designed to be a precision T cell therapy and the process of manufacturing it is complex, highly regulated and subject to multiple risks. As a result of these complexities, the cost to manufacture precision T cell therapies is generally higher than traditional small molecule chemical compounds or antibody therapies, and the manufacturing process for precision T cell therapies is less reliable and is more difficult to reproduce. More specifically, the manufacture of ATL001 involves procuring tumor and blood from the patient from which DNA is extracted and sequenced, using this sequencing data together with our PELEUS platform to identify each patient's unique clonal neoantigens, isolating T cells and dendritic cells from tumor and blood, respectively, manufacturing clonal neoantigen peptides and loading them onto dendritic cells to activate and expand a sub-set of the T cells, and ultimately generating a product enriched for cNeT, which is then re-infused into the patient's body. Even minor deviations from normal manufacturing processes, could result in reduced production yields, product defects, and other supply disruptions. Furthermore, manufacturing poses the risk of the inconsistency in product quality, which could lead to adverse events. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. We cannot assure you that any stability failures or other issues relating to the manufacture of our product candidates will not occur in the future.

As ATL001 or any future product candidate progress through clinical trials towards approval and commercialization, it is expected that various aspects of the manufacturing and administration process will be altered in an effort to optimize processes and results. Any such changes may require amendments to be made to regulatory applications which may further delay the timeframes under which modified manufacturing processes can be used for any of our product candidates.

Developing a commercially viable process is a difficult and uncertain task, and there are risks associated with scaling to the level required for advanced clinical trials or commercialization, including, among others, increased costs, potential problems with process scale-out, process reproducibility, stability issues, lot consistency, and timely availability of reagents or raw materials. Competitors have had difficulty reliably producing TIL therapies. If we experience similar challenges manufacturing product candidates to approved specifications, this may limit our product candidates' utilization and our ability to receive payment for these product candidates once approved. We may ultimately be unable to reduce the expenses associated with our product candidates to levels that will allow us to achieve a profitable return on investment.

We lease a warehouse in west London, where we will construct a flexible GMP modular facility to scale our manufacturing footprint where pod cleanrooms can be brought online in a phased approach. The modular facility will support commercial supply for Europe, and provides optionality to support U.S. operations. While over time, we plan to establish further regional manufacturing facilities, we may not be successful in scaling up our manufacturing capabilities.

Our manufacturing process needs to comply with FDA regulations relating to the quality and reliability of such processes. Any failure to comply with relevant regulations could result in delays in or termination of our clinical programs and suspension or withdrawal of any regulatory approvals.

In order to commercially produce our products, we will need to ensure compliance with the FDA's cGMP regulations and guidelines. We may encounter difficulties in achieving quality control and quality assurance and may experience shortages in qualified personnel. Our facilities are subject to inspections by the FDA and comparable foreign regulatory authorities to confirm compliance with applicable regulatory requirements. Any failure to follow cGMP or other regulatory requirements or delay, interruption or other issues that arise in the manufacture, fill-finish, packaging, or storage of our precision medicines as a result of our failure to comply with regulatory requirements or pass any regulatory authority inspection could significantly impair our ability to develop and commercialize ATL001 and any future product candidates, including leading to significant delays in the availability of ATL001 and any future product candidates for our clinical trials or the termination of or suspension of a clinical trial, or the delay or prevention of a filing or approval of marketing applications for ATL001 or any future product candidates. Significant non-compliance could also result in the imposition of sanctions, including warning or untitled letters, fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approvals, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, any of which could damage our reputation and our business.

If we use hazardous and biological materials for manufacturing in a manner that causes injury or violates applicable law, we may be liable for damages.

Our research and development activities involve the controlled use of potentially hazardous substances, including chemical and biological materials, by our third-party manufacturers. We are subject to federal, state and local laws and regulations in the United Kingdom governing the use, manufacture, storage, handling and disposal of biological and hazardous materials. Although we believe that our procedures for using, handling, storing and disposing of these materials comply with legally prescribed standards, we cannot completely eliminate the risk of contamination or injury resulting from medical or hazardous materials. As a result of any such contamination or injury, we may incur liability or local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. We do not have any insurance for liabilities arising from biological or hazardous materials. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production efforts, which could harm our business, prospects, financial condition or results of operations.

We plan to establish our own commercial-scale manufacturing facilities and infrastructure in lieu of relying on third parties for the manufacture of ATL001 and any future product candidates, which will be costly, time-consuming, and which may not be successful.

We are in the process of adding manufacturing capacity for our clinical trials and we plan to establish our own commercial manufacturing facility. The establishment of our own commercial manufacturing facility would be a costly and time-consuming process that we expect to require additional capital to fund and take several years before becoming operational. For example, we plan to develop a fully closed end-to-end manufacturing process, which is challenging, time-consuming and will require significant resources. We may experience unexpected delays or costs as we continue to improve our VELOS manufacturing process and may ultimately be unsuccessful in obtaining manufacturing scale capabilities. Furthermore, as we scale up the VELOS

manufacturing process, we may be required to make changes to the process which can affect the composition of ATL001 and any future product candidates.

We have no experience as a company in setting up, building or managing a commercial-scale manufacturing facility, and may never be successful in developing our own commercial-scale manufacturing facility. We will need to hire additional personnel to manage our operations and facilities and develop the necessary infrastructure to continue the research and development, and eventual commercialization, if approved, of our product candidates. If we fail to recruit the required personnel and generally manage our growth effectively or fail to select the correct location, the development and production of our product candidates could be curtailed or delayed. Even if we are successful in establishing a commercial-scale manufacturing facility, our manufacturing capabilities could be affected by cost-overruns, unexpected delays, equipment failures, labor shortages, natural disasters, power failures and numerous other factors that could prevent us from realizing the intended benefits of our manufacturing strategy and have a material adverse effect on our business.

In addition, the FDA, the EMA, the MHRA and other foreign regulatory authorities may require us to submit samples of any lot of any approved product together with the protocols showing the results of applicable tests at any time. Under some circumstances, the FDA, the EMA, the MHRA or other foreign regulatory authorities may require that we not distribute a lot until the relevant agency authorizes its release. Slight deviations in the manufacturing process, including those affecting quality attributes and stability, may result in unacceptable changes in the product that could result in lot failures or product recalls. Lot failures or product recalls could cause us to delay product launches or clinical trials, which could be costly to us and otherwise harm our business, financial condition, results of operations and prospects. Problems in our manufacturing process could restrict our ability to meet market demand for our products.

We also may encounter problems hiring and retaining the experienced scientific, quality-control and manufacturing personnel needed to operate our manufacturing processes, which could result in delays in production or difficulties in maintaining compliance with applicable regulatory requirements.

Any problems in our manufacturing process or facilities could make us a less attractive collaborator for potential partners, including larger pharmaceutical companies and academic research institutions, which could limit our access to additional attractive development programs.

Brexit may require us to incur additional expenses if we manufacture our clinical product material in the United Kingdom for use at European clinical trial sites.

On June 23, 2016, the United Kingdom held a referendum in which a majority of voters approved an exit from the EU, or Brexit. After nearly three years of negotiation and political and economic uncertainty, the United Kingdom's withdrawal from the EU became effective on January 31, 2020. There was a transitional period, during which EU laws continued to apply in the UK, however this ended on December 31, 2020. The UK and EU have signed a EU-UK Trade and Cooperation Agreement, which became provisionally applicable on January 1, 2021 and will become formally applicable once ratified by both the UK and the EU. This agreement provides details on how some aspects of the UK and EU's relationship regarding medicinal products will operate, particularly in relation to Good Manufacturing Practice, however there are still many uncertainties.

Since a significant proportion of the regulatory framework in the United Kingdom applicable to our business and our product candidates is derived from EU directives and regulations, Brexit could materially impact the regulatory regime with respect to the development and manufacturing of our product candidates in the United Kingdom or the EU, as there is now potential for the UK regulations on medicinal products to diverge from the EU regulations. Following the Brexit transition period a separate process for authorization of drug products, including our product candidates for clinical trials, will be required in the United Kingdom. The Medicines and

Healthcare products Regulatory Agency, or MHRA, the UK medicines and medical devices regulator, has published a series of guidance notes on how the process for authorization of medicines will now work, however exactly what implications this will have in practice remain unclear. For example, this transition may result in delays in importation and export of our clinical trial product, and disruption of the supply chain for clinical trial product and final authorized formulations.

We intend to continue to manufacture our cNeT product candidates at our two United Kingdom manufacturing sites, the Royal Free Hospital and the Cell and Gene Therapy Catapult. Manufacturing product candidates in the United Kingdom could, now the Brexit transition period has expired, affect the clearance or timing of the release of our clinical trial materials out of the United Kingdom. Any such delays could result in our clinical trial sites outside of the United Kingdom not having sufficient clinical trial materials and could adversely affect the timing and completion of our clinical trials.

Risks related to sales, marketing and competition

We currently have no marketing and sales organization and have no experience in marketing products. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, if approved, we may not be able to generate product revenue.

We currently have no sales, marketing or distribution capabilities and have no experience in marketing products. We intend to develop an in-house marketing organization and sales force, which will require significant capital expenditures, management resources and time. We will have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain marketing and sales personnel.

If we are unable or decide not to establish internal sales, marketing and distribution capabilities, we will pursue arrangements with third-party sales, marketing, and distribution collaborators regarding the sales and marketing of our products, if approved. However, there can be no assurance that we will be able to establish or maintain such arrangements on favorable terms or if at all, or if we are able to do so, that these third-party arrangements will provide effective sales forces or marketing and distribution capabilities. Any revenue we receive will depend upon the efforts of such third parties, which may not be successful. We may have little or no control over the marketing and sales efforts of such third parties and our revenue from product sales may be lower than if we had commercialized our product candidates ourselves. We also face competition in our search for third parties to assist us with the sales and marketing efforts of our product candidates.

There can be no assurance that we will be able to develop in-house sales and distribution capabilities or establish or maintain relationships with third-party collaborators to commercialize any product in the United States or overseas.

Even if we obtain regulatory approval of ATL001 or any future product candidates, the products may not gain market acceptance among physicians, patients, hospitals, cancer treatment centers and others in the medical community.

The use of precision cNeT product candidates as a potential cancer treatment is a recent development and may not become broadly accepted by physicians, patients, hospitals, cancer treatment centers and others in the medical community, even if approved by the appropriate regulatory authorities for marketing and sale. If we obtain regulatory approval for ATL001 in any of our current programs or additional follow-on indications or any future product candidates and such product candidates do not gain an adequate level of market acceptance, we could be prevented from or significantly delayed in achieving profitability. Various factors will influence whether our product candidates, if approved, are accepted in the market, including:

- the efficacy of ATL001 in the applicable indication or any future product candidates as demonstrated in clinical trials, and, if required by any applicable authority in connection with the approval for the applicable indications, the ability of ATL001 or any future product candidates to provide patients with incremental health benefits, as compared with other available therapies;
- potential product liability claims;
- the clinical indications for which ATL001 or any future product candidates are approved;
- physicians, hospitals, cancer treatment centers and patients considering ATL001 or any future product candidates as a safe and effective treatment;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the potential and perceived advantages of ATL001 or any future product candidates over alternative treatments;
- the prevalence and severity of any side effects of ATL001 or any future product candidates;
- the prevalence and severity of any side effects for other cancer immuno-therapeutics and public perception of other cancer immune-therapeutics;
- product labeling or product insert requirements of the FDA or other comparable foreign regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA or other comparable foreign regulatory authorities;
- any distribution and use restrictions imposed by the FDA or other comparable foreign regulatory authorities or to which we agree as part of a mandatory REMS or voluntary risk management plan;
- the timing of market introduction of ATL001 or any future product candidates as well as competitive products;
- the cost of treatment in relation to current and future alternative treatments;
- the need to dose our product candidates in combination with other therapeutic agents and related costs;
- the availability of adequate coverage, reimbursement and pricing by third-party payors and government authorities;

- the willingness of patients to pay out-of-pocket in the absence of coverage by third-party payors and government authorities;
- relative convenience and ease of administration, including as compared to current and future alternative treatments and competitive therapies; and
- the effectiveness of our sales and marketing efforts.

In addition, although ATL001 differs in certain ways from other cancer immuno-therapies, advanced T cell therapies and neoantigen directed cell or vaccine approaches, serious adverse events or deaths in other clinical trials involving cancer immuno- therapies, advanced T cell therapies or neoantigen directed cell or vaccine approaches, even if not ultimately attributable to our product or product candidates, could result in increased government regulation, unfavorable public perception and publicity, potential regulatory delays in the testing or approval of our product candidates, stricter labeling requirements for those product candidates that are approved, and a decrease in demand for any such product candidates.

Even if our product candidates, if approved, achieve market acceptance, we may not be able to maintain that market acceptance over time if new products or technologies are introduced that are more favorably received than our products, are more cost effective or render our products obsolete.

The market opportunities for ATL001 or any future product candidates may be relatively small as it will be limited to those patients who are ineligible for or have failed prior treatments and our estimates of the prevalence of our target patient populations may be inaccurate.

Cancer therapies are sometimes characterized by line of therapy (first line, second line, third line, fourth line, etc.), and the FDA often approves new therapies initially only for a particular line or lines of use. When cancer is detected early enough, first line therapy is sometimes adequate to cure the cancer or prolong life without a cure. Whenever first line therapy, usually chemotherapy, antibody drugs, tumor-targeted small molecules, hormone therapy, radiation therapy, surgery, or a combination of these, proves unsuccessful, second line therapy may be administered. Second line therapies often consist of more chemotherapy, radiation, antibody drugs, tumor-targeted small molecules, or a combination of these. Third line therapies can include chemotherapy, antibody drugs and small molecule tumor-targeted therapies, more invasive forms of surgery and new technologies. We expect to initially seek approval of ATL001 in most indications at least as a second or third line therapy, for use in patients with relapsed or refractory metastatic cancer. Subsequently, for those indications in which ATL001 proves to be sufficiently safe and beneficial, if any, we would expect to seek approval as a second line therapy and potentially as a first line therapy, but there is no guarantee that ATL001, even if approved as a second or third line of therapy for any indications, would be approved for an earlier line of therapy, and, prior to any such approvals, we may have to conduct additional clinical trials. Consequently, the potentially addressable patient population for ATL001 or any future product candidates may be extremely limited or may not be amenable to treatment with our product candidates.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive a particular line of therapy and who have the potential to benefit from treatment with ATL001 or future product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, commissioned reports, surveys of clinics, patient foundations or market research, and may prove to be incorrect. Further, new therapies may change the estimated incidence or prevalence of the cancers that we are targeting. Consequently, even if ATL001 or any product candidates are approved for a second or third line of therapy, the number of patients that may be eligible for treatment with our product candidates may turn out to be much lower than expected.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The biotechnology and pharmaceutical industries utilize rapidly advancing technologies and are characterized by intense competition. While we believe that our differentiated product, scientific knowledge, platform technology and development expertise in the field of immuno-oncology therapy provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceuticals, specialty pharmaceuticals and biotechnology companies, academic institutions and government agencies, and public and private research institutes that conduct research, development, manufacturing and commercialization. Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, regulatory approvals and product marketing than we do. Our competitors may compete with us in recruiting and retaining qualified scientific 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. As a result, our competitors may discover, develop, license or commercialize products before or more successfully than we do.

In addition, many of these competitors are active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors, either alone or with collaborative partners, may succeed in developing, acquiring or licensing on an exclusive basis drug or biologic products that are more effective, safer, more easily commercialized or less costly than our product candidates or may develop proprietary technologies or secure patent protection that we may need for the development of our technologies and products. We believe the key competitive factors that will affect the development and commercial success of our product candidates are safety, potency, purity, tolerability, reliability, convenience of use, price and reimbursement.

Specifically, advanced T cell therapies are under evaluation in solid tumors by multiple biotechnology and pharmaceutical companies, including Kite Pharma Inc. (a Gilead company), Iovance Biotherapeutics Inc., Adaptimmune Therapeutics PLC, Instil Bio, Inc., PACT Pharma, Inc., Neogene Therapeutics, Inc. and BioNTech SE. In particular, Iovance Biotherapeutics Inc. is developing a standard TIL therapy for melanoma, which will compete directly with our product candidate, ATL001, in this indication.

We anticipate that we will face intense and increasing competition as new products and therapies enter the market and advanced technologies become available. We expect any treatments that we develop and commercialize to compete on the basis of, among other things, efficacy, safety, delivery, price and the availability of reimbursement from government and other third-party payers.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive or better reimbursed than any products that we may commercialize. 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 for either the product or a specific indication before we are able to enter the market.

Even if we obtain regulatory approval of our product candidates, the availability and price of our competitors' products could limit the demand and the price we are able to charge for our product candidates. We may not be able to implement our business plan if the acceptance of our product candidates is inhibited by price competition or the reluctance of physicians to switch from existing methods of treatment to our product

candidates, or if physicians switch to other new drug or biologic products or choose to reserve our product candidates for use in limited circumstances. For additional information regarding our competition, see “Business—Competition.”

A variety of risks associated with marketing our product candidates internationally could materially adversely affect our business.

We plan to seek regulatory approval of ATL001 and any future product candidates outside of the United States and, accordingly, we expect that we will be subject to additional risks related to operating in foreign countries if we obtain the necessary approvals, including:

- differing regulatory requirements in foreign countries;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the Foreign Corrupt Practices Act of 1977 or comparable foreign laws and regulations;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with international operations may materially adversely affect our ability to attain or maintain profitable operations.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability as a result of the clinical testing of ATL001 or any future product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if a product candidate causes or is perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or

be required to limit commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for ATL001 or any future product candidates or products that we may develop;
- injury to our reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- regulatory investigation, product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- the inability to commercialize any product candidate; and
- a decline in our share price.

Failure to obtain or retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop, alone or with corporate collaborators. Although we have clinical trial insurance, our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. In the future, we may be unable to maintain this insurance coverage, or we may not be able to obtain additional or replacement coverage at a reasonable cost, if at all. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Risks related to government regulation

Risks related to regulatory review and approval of product candidates

The FDA regulatory approval process is lengthy and time-consuming, and we may experience significant delays in the clinical development and regulatory approval of ATL001 and any future product candidates.

We have not previously submitted a Biologics License Application, or BLA, to the FDA or similar marketing applications to similar foreign regulatory authorities. A BLA must include extensive preclinical and clinical data and supporting information to establish the product candidate's safety, purity and potency for each desired indication. The BLA must also include significant information regarding the manufacturing controls for the product. We may also experience delays in completing planned clinical trials for a variety of reasons, including delays related to:

- the availability of financial resources to commence and complete the planned trials;

- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- obtaining approval at each clinical trial site by an IRB or ethics committee;
- recruiting suitable patients to participate in a clinical trial;
- having patients complete a clinical trial or return for post-treatment follow-up;
- clinical trial sites deviating from trial protocol or dropping out of a trial;
- addressing any patient safety concerns that arise during the course of a trial;
- adding new clinical trial sites; or
- manufacturing sufficient quantities of qualified materials under cGMPs and including current good tissue practices requirements and applying them on a subject-by-subject basis for use in clinical trials.

Securing regulatory approval also requires the submission of information about the biologic manufacturing process and inspection of manufacturing facilities by the relevant regulatory authority. The FDA or similar foreign regulatory authorities may fail to approve our manufacturing processes or facilities, whether run by us or our commercial manufacturing organizations, or CMOs. In addition, if we make changes to our manufacturing process for ATL001 or any future product candidates in the future, we may need to conduct additional research or clinical trials to bridge our modified product candidates to earlier versions.

Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may ultimately lead to the denial of regulatory approval of ATL001 and any future product candidates.

Regulatory authorities in the United States and European Union have limited experience in reviewing and approving cell therapy products, which could affect the time and data required to obtain marketing authorization of any of our product candidates.

Our future success depends in part on our successful development of viable cell therapy product candidates utilizing our PELEUS bioinformatics platform. We may experience problems or delays in developing such product candidates and any such problems or delays may result in unanticipated costs and time to develop our product candidates and/or may not be resolved in a satisfactory manner.

The regulatory approval process and clinical trial requirements for novel product candidates can be more expensive and take longer than for other, better known or more extensively studied product candidates, and we cannot predict how long it will take or how much it will cost to complete clinical developments and obtain regulatory approvals for a cell therapy product candidate in either the United States or the European Union or how long it will take to commercialize a cell therapy product candidate, if and when approved. Regulatory requirements governing cell therapy products have changed frequently and may continue to change in the future. For example, the FDA established the Office of Tissues and Advanced Therapies within its Center for Biologics Evaluation and Research, or CBER, to consolidate the review of cell therapies and related products, and the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER on its review. These and other regulatory review agencies, committees and advisory groups and the requirements and guidelines they promulgate may lengthen the regulatory review process, require us to perform additional preclinical studies or clinical trials, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of these treatment candidates or lead to significant post-approval limitations or restrictions.

A similar framework is in place in the European Union, or the EU. The European Medicines Agency, or the EMA, has a Committee for Advanced Therapies, or CAT, that is responsible for assessing the quality, safety and efficacy of advanced-therapy medicinal products. Advanced-therapy medical products include gene therapy medicine, somatic-cell therapy medicines and tissue-engineered medicines. The role of the CAT is to prepare a draft opinion on an application for marketing authorization for a gene therapy medicinal candidate that is submitted to the EMA. In the EU, the development and evaluation of a gene therapy medicinal product must be considered in the context of the relevant EU guidelines. The EMA may issue new guidelines concerning the development and marketing authorization for somatic cell therapy medicinal products and require that we comply with these new guidelines. Similarly, complex regulatory environments exist in other jurisdictions in which we might consider seeking regulatory approvals for our product candidates, further complicating the regulatory landscape. As a result, the procedures and standards applied to gene therapy products and cell therapy products may be applied to any of our gene therapy or genome editing product candidates, but that remains uncertain at this point.

The clinical trial requirements of the FDA, the EMA and other regulatory authorities and the criteria these regulators use to evaluate the safety and efficacy of a product candidate vary substantially according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for product candidates such as ours can be more lengthy, rigorous and expensive than the process for other better known or more extensively studied product candidates and technologies. Since we are developing novel treatments for diseases in which there is little clinical experience with new endpoints and methodologies, there is heightened risk that the FDA, the EMA or comparable regulatory bodies may not consider the clinical trial endpoints to provide clinically meaningful results, and the resulting clinical data and results may be more difficult to analyze. This may be a particularly significant risk for many of the genetically defined diseases for which we may develop product candidates alone or with collaborators due to small patient populations for those diseases, and designing and executing a rigorous clinical trial with appropriate statistical power is more difficult than with diseases that have larger patient populations. Regulatory agencies administering existing or future regulations or legislation may not allow production and marketing of cell therapy products in a timely manner or under technically or commercially feasible conditions.

Even if our product candidates obtain required regulatory approvals, such approvals may later be withdrawn as a result of changes in regulations or the interpretation of regulations by applicable regulatory agencies. Additionally, adverse developments in clinical trials conducted by others of cell therapy products or products created using similar technology, or adverse public perception of the field of cell therapies, may cause the FDA, the EMA and other regulatory bodies to revise the requirements for approval of any product candidates we may develop or limit the use of products utilizing technologies such as ours, either of which could materially harm our business.

As we advance our product candidates, we will be required to consult with various regulatory authorities, and we must comply with applicable laws, rules, and regulations, which may change from time to time including during the course of development of our product candidates. If we fail to do so, we may be required to delay or discontinue the clinical development of certain of our product candidates. These additional processes may result in a review and approval process that is longer than we otherwise would have expected. Even if we comply with applicable laws, rules, and regulations, and even if we maintain close coordination with the applicable regulatory authorities with oversight over our product candidates, our development programs may fail to succeed. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market would materially and adversely affect our business, financial condition, results of operations and prospects.

We may in the future seek orphan drug designation for ATL001 and any future product candidates, but we may be unable to obtain such designations or to maintain the benefits associated with orphan drug designation, including market exclusivity, which may cause our revenue, if any, to be reduced.

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000 in the United States, or a patient population of 200,000 or more in the United States when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug or biologic and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

If a product candidate that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a BLA, to market the same product for the same indication for seven years, except in limited circumstances such as a showing of clinical superiority to the product with orphan drug exclusivity or if the FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the product was designated. As a result, even if one of our product candidates receives orphan exclusivity, the FDA can still approve other drugs that have a different active ingredient for use in treating the same indication or disease. Furthermore, the FDA can waive orphan exclusivity if we are unable to manufacture sufficient supply of our product.

We may seek orphan drug designation for ATL001 in the indications we are currently targeting or any follow-on indications as well as for any future product candidates in additional orphan indications in which there is a plausible basis for the evaluation of these product candidates. Even if we obtain orphan drug designation, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan designated indication and may be lost if the FDA later determines that the request for designation was materially defective or if we are unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a product candidate, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a later product for the same condition if the FDA concludes that the later product is clinically superior in that it is safer, more effective, or makes a major contribution to patient care.

On August 3, 2017, Congress passed the FDA Reauthorization Act of 2017, or FDARA. FDARA, among other things, codified the FDA's pre-existing regulatory interpretation, to require that a drug sponsor demonstrate the clinical superiority of an orphan drug that is otherwise the same as a previously approved drug for the same rare disease in order to receive orphan drug exclusivity. The legislation reverses prior precedent holding that the Orphan Drug Act unambiguously requires that the FDA recognize the orphan exclusivity period regardless of a showing of clinical superiority. Moreover, in the Consolidated Appropriations Act of 2021, Congress did not further change this interpretation when it clarified that the interpretation codified in FDARA would apply in cases where the FDA issued an orphan designation before the enactment of FDARA but where product approval came after the enactment of FDARA. The FDA may further reevaluate the Orphan Drug Act and its regulations and policies. We do not know if, when, or how the FDA may change the orphan drug regulations and policies in the future, and it is uncertain how any changes might affect our business. Depending on what changes the FDA may make to its orphan drug regulations and policies, our business could be adversely impacted.

A breakthrough therapy designation or accelerated approval by the FDA, even if granted for ATL001 or any of our future product candidates, may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood that our product candidates will receive marketing approval.

We may seek breakthrough therapy designation for ATL001 in the indications we are currently targeting or any follow-on indications as well as for any future product candidates. A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug, or biologic, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Sponsors of product candidates that have been designated as breakthrough therapies are eligible to receive more intensive FDA guidance on developing an efficient drug development program, an organizational commitment involving senior managers, and eligibility for rolling review and priority review. A product candidate is eligible for Priority Review if it has the potential to provide a significant improvement in safety or effectiveness in the treatment, diagnosis or prevention of a serious disease or condition. Under priority review, the FDA must review an application in six months compared to ten months for a standard review.

Drugs and biologics designated as breakthrough therapies by the FDA may also be eligible for other expedited approval programs, including accelerated approval. A product candidate may be eligible for accelerated approval if it treats a serious or life-threatening condition, generally provides a meaningful advantage over available therapies, and demonstrates an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. As a condition of accelerated approval, the FDA may require that a sponsor of a product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. These confirmatory trials must be completed with due diligence. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Even if we do receive accelerated approval, we may not experience a faster development or regulatory review or approval process, and receiving accelerated approval does not provide assurance of ultimate full FDA approval. Accelerated approval may also be withdrawn if, among other things, a confirmatory trial required to verify the predicted clinical benefit of the product fails to verify such benefit or if such trial is not conducted with due diligence.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to candidate products considered for approval under non-expedited FDA review procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product no longer meets the conditions for qualification. Thus, even though we intend to seek breakthrough therapy designation for certain of our current and future product candidates for the treatment of various cancers, there can be no assurance that we will receive Breakthrough Therapy Designation.

A fast track or regenerative medicine advanced therapy, or RMAT, designation by the FDA, even if granted for ATL001 or any future product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.

If a drug or biologic is intended for the treatment of a serious or life-threatening disease or condition and the product candidate demonstrates the potential to address unmet medical needs for such disease or condition,

the sponsor may apply for FDA Fast Track designation for a particular indication. The sponsor of a Fast Track product candidate has opportunities for more frequent interactions with the applicable FDA review team during product development and, once a BLA is submitted, the product candidate may be eligible for priority review. Fast Track designation does not, however, guarantee that the application will be designated for priority review. A Fast Track product candidate may also be eligible for rolling review, where the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

A company may request RMAT designation of its product candidate, and FDA may granted such designation if the product meets the following criteria: (i) it is a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, with limited exceptions; (ii) it is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and (iii) preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such a disease or condition. RMAT designation provides potential benefits that include more frequent meetings with FDA to discuss the development plan for the product candidate, and potential eligibility for rolling review and priority review. Products granted RMAT designation may also be eligible for accelerated approval on the basis of a surrogate or intermediate endpoint reasonably likely to predict long-term clinical benefit, or reliance upon data obtained from a meaningful number of sites, including through expansion of trials to additional sites.

The FDA has broad discretion whether or not to grant fast track or RMAT designation, so even if we believe a particular product candidate is eligible for such designations, there can be no assurance that the FDA would decide to grant it. Even if we do receive fast track or RMAT designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures, and receiving a fast track or RMAT designation does not provide assurance of ultimate FDA approval. In addition, the FDA may withdraw fast track or RMAT designation if it believes that the designation is no longer supported by data from our clinical development program.

Even if we obtain FDA, EMA or MHRA approval for ATL001 in the indications we are currently targeting or any follow-on indications or any future product candidates that we may identify and pursue in the United States, Europe or the United Kingdom, we may never obtain approval to commercialize any such product candidates outside of those jurisdictions, which would limit our ability to realize their full market potential.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and effectiveness. Regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval processes vary among countries and can involve additional product testing and validation and additional or different administrative review periods from those in the United States, including additional research or clinical trials, as clinical trials 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.

Seeking foreign regulatory approval could result in difficulties and costs and require additional nonclinical studies or clinical trials which could be costly and time-consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our current or future product candidates

in those countries. The foreign regulatory approval process may include all of the risks associated with obtaining FDA, EMA or MHRA approval. We do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets for our current or future product candidates. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approval in international markets is delayed, our target market will be reduced and our ability to realize the full market potential of our current or future product candidates will be harmed.

Risks related to ongoing regulatory obligations

Even if we receive regulatory approval of ATL001 in the indications we are currently targeting or any follow-on indications or any future product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

Any regulatory approvals that we receive for our product candidates will require surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a risk evaluation and mitigation strategy, or REMS, in order to approve our product candidates, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for our product candidates will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs, good laboratory practice, or GLP, regulations and GCPs, for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with our product candidates, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of our product candidates, withdrawal of the product from the market or voluntary or mandatory product recalls;
- manufacturing delays and supply disruptions where regulatory inspections identify observations of noncompliance requiring remediation;
- revisions to the labeling, including limitation on approved uses or the addition of additional warnings, contraindications or other safety information, including boxed warnings;
- imposition of a REMS which may include which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools;
- requirements to conduct additional post-market clinical trials to assess the safety of the product;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of approvals;
- product seizure or detention, or refusal to permit the import or export of our product candidates; and

- injunctions or the imposition of civil or criminal penalties.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our product candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity. In addition, the FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.

We must comply with requirements concerning advertising and promotion for any product candidates for which we obtain marketing approval. Promotional communications with respect to therapeutics are subject to a variety of legal and regulatory restrictions and continuing review by the FDA, Department of Justice, Department of Health and Human Services' Office of Inspector General, state attorneys general, members of Congress, and the public. When the FDA or comparable foreign regulatory authorities issue regulatory approval for a product candidate, the regulatory approval is limited to those specific uses and indications for which a product is approved.

Physicians may choose to prescribe products for uses that are not described in the product's labeling and for uses that differ from those tested in clinical trials and approved by the regulatory authorities. Regulatory authorities in the United States generally do not restrict or regulate the behavior of physicians in their choice of treatment within the practice of medicine. Regulatory authorities do, however, restrict communications by biopharmaceutical companies concerning off-label use.

If ATL001 or any future product candidates are approved and we are found to have improperly promoted off-label uses of those products, we may become subject to significant liability. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription products, if approved. In particular, while the FDA permits the dissemination of truthful and non-misleading information about an approved product, a manufacturer may not promote a product for uses that are not approved by the FDA or such other regulatory agencies, as reflected in the product's approved labeling. If such regulatory agencies find that we have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines against companies for alleged improper promotion of off-label use of their products and has enjoined several companies from engaging in off-label promotion. The FDA and other regulatory agencies have also required companies to enter into consent decrees or corporate integrity agreements, or imposed permanent injunctions under which specified promotional conduct must be changed or curtailed.

In the United States, engaging in the impermissible promotion of any products, following approval, for off-label uses can also subject us to false claims and other litigation under federal and state statutes. These statutes include fraud and abuse and consumer protection laws, which can lead to civil and criminal penalties and fines, agreements with governmental authorities that materially restrict the manner in which we promote or distribute therapeutic products and conduct our business. These restrictions could include corporate integrity agreements, suspension or exclusion from participation in federal and state healthcare programs, suspension and debarment from government contracts and refusal of orders under existing government contracts. False Claims Act lawsuits brought by federal and state enforcement agencies against manufacturers of drugs and

biologics have increased significantly in volume and breadth, leading to several substantial civil and criminal settlements pertaining to certain sales practices and promoting off-label uses. In addition, False Claims Act lawsuits may expose manufacturers to follow-on claims by private payers based on fraudulent marketing practices. This growth in litigation has increased the risk that a biopharmaceutical company will have to defend a false claim action, pay settlement fines or restitution, as well as criminal and civil penalties, agree to comply with burdensome reporting and compliance obligations, and be excluded from Medicare, Medicaid, or other federal and state healthcare programs. If we do not lawfully promote our approved products, if any, we may become subject to such litigation and, if we do not successfully defend against such actions, those actions may have a material adverse effect on our business, financial condition, results of operations, stock price and prospect.

In the United States, the promotion of biopharmaceutical products is subject to additional FDA requirements and restrictions on promotional statements. If, after ATL001 or any of our future product candidates obtains marketing approval, the FDA determines that our promotional activities violate its regulations and policies pertaining to product promotion, it could request that we modify our promotional materials or subject us to regulatory or other enforcement actions, including issuance of warning letters or untitled letters, suspension or withdrawal of an approved product from the market, requests for recalls, payment of civil fines, disgorgement of money, imposition of operating restrictions, injunctions or criminal prosecution, and other enforcement actions. Similarly, industry codes in foreign jurisdictions may prohibit companies from engaging in certain promotional activities, and regulatory agencies in various countries may enforce violations of such codes with civil penalties. If we become subject to regulatory and enforcement actions, our business, financial condition, results of operations, stock price and prospects will be materially harmed.

Our product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

The Affordable Care Act includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a highly similar or “biosimilar” product may not be submitted to the FDA until four years following the date that the reference product was first approved by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first approved. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor’s own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty.

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

The success of current programs, additional follow-on indications for ATL001 and any future product candidates, if approved, will depend significantly on our ability to obtain adequate coverage and reimbursement of, or the willingness of patients to pay for, our product candidates.

In the United States and in other countries, patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. We believe our success depends on obtaining and maintaining coverage and adequate reimbursement for our product candidates, and the extent to which patients will be willing to pay out-of-pocket for such products. The availability of insurance coverage and adequacy of reimbursement for our products by third-party payors, including government health care programs (e.g., Medicare, Medicaid, TRICARE), managed care providers, private health insurers, health maintenance organizations, and other organizations is essential for most patients to be able to afford medical services and novel pharmaceutical products such as our product candidates.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors and coverage and reimbursement levels for products can differ significantly from payor to payor. As a result, decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a payor-by-payor basis. One payor's determination to provide coverage for a drug or biological product does not assure that other payors will also provide coverage for the same product. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage and reimbursement policies. It is difficult to predict what the Centers for Medicare & Medicaid Services, or CMS, the federal agency responsible for administering the Medicare program, will decide with respect to reimbursement for fundamentally novel products such as ours.

Eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale, and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services.

Patients who are treated in-office for a medical condition generally rely on third-party payors to reimburse all or part of the costs associated with the procedure, including costs associated with products used during the procedure, and may be unwilling to undergo such procedures in the absence of such coverage and adequate reimbursement. Physicians may be unlikely to offer procedures for such treatment if they are not covered or inadequately covered by insurance and may be unlikely to purchase and use our product candidates, if approved, for our stated indications unless coverage is provided and reimbursement is adequate. In addition, for products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs.

Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that a product is safe, effective and medically necessary; appropriate for the specific patient; cost-effective; supported by peer-reviewed medical journals; included in clinical practice guidelines; and neither cosmetic, experimental, nor investigational. Further, increasing efforts by third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. In order to secure coverage and reimbursement for any product that might be approved for sale, 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 FDA or comparable regulatory approvals. Additionally, we may also need to provide discounts to

purchasers, private health plans or government healthcare programs. Our product candidates may, nonetheless, not be considered medically necessary or cost-effective. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover the product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit. We expect to experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional upcoming and anticipated legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

Foreign governments also have their own healthcare reimbursement systems, which vary significantly by country and region, and we cannot be sure that coverage and adequate reimbursement will be made available with respect to our product candidates under any foreign reimbursement system. To that end, reimbursement agencies in Europe may be more conservative than CMS. For example, a number of cancer drugs have been approved for reimbursement in the United States and have not been approved for reimbursement in certain European countries.

There can be no assurance that any of our product candidates, if approved for sale in the United States or in other countries, will be considered medically reasonable and necessary and/or cost-effective by third-party payors, that coverage or an adequate level of reimbursement will be available or that reimbursement policies and practices in the United States and in foreign countries where our products are sold will not adversely affect our ability to sell our product candidates profitably, even if they are approved for sale.

Healthcare legislative or regulatory reform measures may have a material adverse effect on our business and results of operations.

The United States and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay marketing approval of our product candidates or any future product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell a product for which we obtain marketing approval. Changes in applicable laws, rules, and regulations or the interpretation of existing laws, rules, and regulations could impact our business in the future by requiring, for example: (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; or (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

Among policy makers and payors in the United States and in many foreign jurisdictions, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. For example, in March 2010, the Affordable Care Act, or ACA, was passed, which substantially changed the way healthcare is financed by both the government and private insurers, and significantly impacts the United States pharmaceutical industry. The ACA, among other things: (i) established an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs; (ii) expanded the entities eligible for discounts under the 340B drug pricing program; (iii) increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively, and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price, or AMP; (iv) expanded the eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to

additional individuals and by adding new eligibility categories for individuals with income at or below 133% (as calculated, it constitutes 138%) of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability; (v) addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs and biologics that are inhaled, infused, instilled, implanted or injected; (vi) introduced a new Medicare Part D coverage gap discount program pursuant to which manufacturers must now agree to offer 70% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D (increased from 50%, effective January 1, 2019, pursuant to the Bipartisan Budget Act of 2018); (vii) created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and (viii) established the Center for Medicare and Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drugs.

Since the ACA was enacted, there have been numerous judicial and Congressional challenges to certain aspects of the ACA, some of which remain unresolved, as well as efforts by the current administration to repeal or replace certain aspects of the ACA. By way of example, the Tax Cuts and Jobs Act of 2017, or Tax Act, includes a provision that repealed, 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." In addition, 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. The Bipartisan Budget Act of 2018, or the BBA, among other things, amended the ACA, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." 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 federal district court litigation regarding the method CMS uses to determine this risk adjustment. On April 27, 2020, the United States Supreme Court reversed a federal circuit court decision that previously upheld Congress' denial of $12 billion in "risk corridor" funding. On December 14, 2018, a Texas United States 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 Act. Additionally, on December 18, 2019, the United States 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 oral arguments occurred on November 10, 2020 with a decision expected sometime in 2021. It is unclear how such litigation and other efforts to repeal and replace the ACA will impact the ACA or our business, financial condition and results of operations.

Other legislative changes have been proposed and adopted since the ACA was enacted. These changes include aggregate reductions to Medicare payments to providers of 2% per fiscal year pursuant to the Budget Control Act of 2011, which began in 2013, and due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of temporary suspension from May 1, 2020 through March 31, 2021, unless additional Congressional action is taken. Proposed legislation, if passed, would extend this suspension until the end of the public health emergency. The American Taxpayer Relief Act of 2012, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These laws and similar future legislative initiatives may result in additional reductions in Medicare and other healthcare funding that could have an adverse effect on customers for our product candidates, if approved, and, accordingly, our financial 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. The probability of success of any previously announced policies under the former Trump administration and their impact on the United States prescription drug marketplace is unknown, including our product candidates, if approved, particularly in light of the new Biden administration.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We expect that these and other healthcare reform measures that may be adopted in the future may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product candidate. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our drugs, and could have a material adverse effect on our business, financial condition, and results of operations.

Our business activities will be subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery and anti-corruption laws.

As we engage in and expand our business activities outside of the United States, including our clinical trial efforts, we will be subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-United States government official in order to influence official action, or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-United States governments. Additionally, in many other foreign jurisdictions, the healthcare providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers will be subject to regulation under the FCPA. Recently the SEC and Department of Justice have increased their FCPA enforcement activities with respect to biotechnology and pharmaceutical companies. There is no certainty that all of our employees, agents, suppliers, manufacturers, contractors, or collaborators, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity and variability of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers, or our employees, the closing down of facilities, including those of our suppliers and manufacturers, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries as well as difficulties in manufacturing or continuing to develop our products, and could materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees, and our business, prospects, operating results, and financial condition.

Inadequate funding for the FDA, the SEC and other government agencies, including from government shut downs, global health concerns or other disruptions to these agencies' operations, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the FDA have fluctuated in recent years as a result. Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which could adversely affect our business. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Separately, in response to the COVID-19 pandemic, on March 10, 2020 the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products while local, national and international conditions warrant. On March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance inspections of domestic manufacturing facilities and provided guidance regarding the conduct of clinical trials which the FDA continues to update. As of June 23, 2020, the FDA noted it was continuing to ensure timely reviews of applications for medical products during the COVID-19 pandemic in line with its user fee performance goals and conducting mission critical domestic and foreign inspections to ensure compliance of manufacturing facilities with FDA quality standards. As of July 2020, FDA began utilizing a risk-based prioritization system to assist in determining when and where it is safest to conduct such inspections based on data about the virus' trajectory in a given state and locality and the rules and guidelines that are put in place by state and local governments. In August 2020, FDA published guidance outlining its approach to facility inspections during the COVID-19 pandemic. According to the guidance, FDA intends to, on a case-by-case basis, conduct only mission critical inspections, or, where possible to do so safely, resume prioritized domestic inspections, which generally include pre-approval inspections. Foreign pre-approval inspections that are not deemed mission-critical will continue to be postponed, while those deemed mission-critical will be considered for inspection on a case-by-case basis. FDA plans to use similar criteria to determine whether or not to resume prioritized operations abroad as it becomes feasible and advisable to do so. According to the guidance, should FDA determine that an inspection is necessary for approval and an inspection cannot be completed during the review cycle due to restrictions on travel, FDA has stated that it generally intends to issue a complete response letter. Further, if there is inadequate information to make a determination on the acceptability of a facility, FDA intends to defer action on the application until an inspection can be completed. In 2020, several companies announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. Additionally, regulatory authorities outside the U.S. may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic and may experience delays in their regulatory activities. If a prolonged government shutdown or other disruption occurs, it could significantly impact the ability of the

FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Future shutdowns or other disruptions could also affect other government agencies such as the SEC, which may also impact our business by delaying review of our public filings, to the extent such review is necessary, and our ability to access the public markets.

Our business operations and current and future relationships with investigators, health care professionals, consultants, third-party payors and customers may be subject, directly or indirectly, to U.S. federal and state healthcare fraud and abuse laws, false claims laws, health information privacy and security laws, other healthcare laws and regulations and other foreign privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

Although we do not currently have any therapies on the market, our current and future operations may be directly, or indirectly through our relationships with investigators, health care professionals, customers and third-party payors, subject to various U.S. federal and state healthcare laws and regulations. Healthcare providers, physicians and others play a primary role in the recommendation and prescription of any therapies for which we obtain marketing approval. These laws impact, among other things, our research activities and proposed sales, marketing and education programs and constrain our business and financial arrangements and relationships with third-party payors, healthcare professionals who participate in our clinical research program, healthcare professionals and others who recommend, purchase, or provide our approved therapies, and other parties through which we market, sell and distribute our therapies for which we obtain marketing approval. In addition, we may be subject to patient data privacy and security regulation by both the U.S. federal government and the states in which we conduct our business, along with foreign regulators (including European data protection authorities). Finally, our current and future operations are subject to additional healthcare-related statutory and regulatory requirements and enforcement by foreign regulatory authorities in jurisdictions in which we conduct our business. These laws include, but are not limited to, the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration (including any kickback, bribe, or certain rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Violations are subject to significant civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. The definition of the “remuneration” under the federal Anti-Kickback Statute has been interpreted to include anything of value. Further, courts have found that if “one purpose” of remuneration is to induce referrals, the federal Anti-Kickback Statute is violated. 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. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution; but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection;
- the federal civil and criminal false claims laws, such as the FCA, which prohibits individuals or entities from, among other things, knowingly presenting, or causing to be presented, false or fraudulent claims for payment to, or approval by Medicare, Medicaid, or other federal healthcare programs, knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim or an obligation to pay or transmit money to the federal government, or knowingly concealing or knowingly and improperly avoiding or decreasing or concealing an obligation to pay money to the U.S. federal government.

Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. In addition, the government may assert that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act, or the FCA. The FCA also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery. When an entity is determined to have violated the FCA, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs;

- the federal civil monetary penalties laws, which impose civil fines for, among other things, the offering or transfer or remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies;
- the U.S. federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (i.e., public or private), 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. Similar to the federal Anti-Kickback Statute, a person or entity can be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which imposes certain obligations, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without appropriate authorization by covered entities, such as health plans, healthcare clearinghouses and certain healthcare providers, as well as their business associates that perform certain services involving such individually identifiable health information. Mandatory penalties for HIPAA violations can be significant. A single breach incident can result in violations of multiple standards. If a person knowingly or intentionally obtains or discloses PHI in violation of HIPAA requirements, criminal penalties may also be imposed;
- the Federal Food, Drug and Cosmetic Act, or FDC Act, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;
- the U.S. federal legislation commonly referred to as Physician Payments Sunshine Act, and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to the CMS information related to certain payments and other transfers of value to physicians (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. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made during the previous year to certain non-physician providers such as physician assistants and nurse practitioners;
- analogous state laws and regulations, including the following: state anti-kickback and false claims laws, which may be broader in scope than their federal equivalents, and which may apply to our business practices, including research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that

require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, and/or require tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; state and local laws that require the registration of pharmaceutical sales representatives and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and

- the European and other foreign law equivalents of each of these laws, including reporting requirements detailing interactions with and payments to healthcare providers, and privacy-related requirements in Europe and other jurisdictions.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including approval, extensive record-keeping, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased 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. Even if precautions are taken, it is possible that governmental authorities will conclude that our business practices including compensation of physicians with stock or stock options, could, despite efforts to comply, be subject to challenge under current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion of drugs from government funded healthcare programs, such as Medicare and Medicaid, 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, reputational harm and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, that person or entity may be subject to significant criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs. Prohibitions or restrictions on sales or withdrawal of future marketed products could materially affect our business in an adverse way.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. The shifting compliance environment and the need to build and maintain robust and expandable systems to comply with multiple jurisdictions with different compliance or reporting requirements increases the possibility that a healthcare company may run afoul of one or more of the requirements.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and

wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

Failure to comply with current or future national, supranational, federal or state laws and regulations, regulatory guidance and industry standards relating to data protection, privacy and information security, including restrictive European regulations, could lead to government enforcement actions (which could include civil or criminal penalties), private litigation, and/or adverse publicity and could negatively affect our operating results and business.

We and our collaborators and third-party providers are subject to national, supranational, federal or state laws and regulations, regulatory guidance and industry standards relating to data protection, privacy and information security. This includes the EU General Data Protection Regulation, or GDPR, as well as other national data protection legislation in force in relevant EU and EEA member states (including the Data Protection Act 2018 in the United Kingdom), which governs the collection, use, storage, disclosure, transfer, or other processing of personal data (including health data processed in the context of clinical trials): (i) regarding individuals in the EU and EEA; and/or (ii) carried out in the context of the activities of our establishment in any EU and EEA member state. Following the United Kingdom's withdrawal from the EU on January 31, 2020, pursuant to the transitional arrangements agreed between the United Kingdom and the EU, the GDPR continued to have effect in English law until December 31, 2020, in the same fashion as was the case prior to that withdrawal as if the United Kingdom remained an EU member state for such purposes. The United Kingdom has implemented laws that are equivalent to the GDPR in national legislation. As such, following December 31, 2020, the data protection obligations of the GDPR will continue to apply to our processing of personal data in substantially unvaried form, for at least the short to medium term thereafter.

The GDPR is wide-ranging in scope and imposes numerous additional requirements on companies that process personal data, including imposing special requirements in respect of the processing of health and other sensitive data, requiring that consent of individuals to whom the personal data relates is obtained in certain circumstances, requiring additional disclosures to individuals regarding data processing activities, requiring that safeguards are implemented to protect the security and confidentiality of personal data, creating mandatory data breach notification requirements in certain circumstances, and requiring that certain measures (including contractual requirements) are put in place when engaging third-party processors. The GDPR defines personal data to include coded data and imposes high thresholds for informed consent and detailed notices for clinical trial subjects and investigators. The GDPR provides individuals with various rights in respect of their personal data, including rights of access, erasure, portability, rectification, restriction and objection. EU data
protection authorities may impose large penalties for violations of the data protection laws, including potential fines of up to €20 million or 4% of annual global revenue, whichever is greater.

The GDPR imposes strict rules on the transfer of personal data to countries outside the EEA and Switzerland, including the United States. For example, in July 2020, the Court of Justice of the European Union limited how

organizations could lawfully transfer personal data from the EEA to the United States by invalidating the EU-US Privacy Shield and imposing further restrictions on use of the standard contractual clauses, which could increase our costs and our ability to efficiently process personal data from the EEA. The United Kingdom and Switzerland have adopted similar restrictions. Since January 1, 2021, the United Kingdom is considered a third country by the EU. The EU does not currently recognize the United Kingdom as having adequate laws to the protect the rights and freedoms of data subjects such that personal data may transfer to from the EU to the United Kingdom without an approved transfer mechanism.

The GDPR may increase our responsibility and liability in relation to personal data that we process where such processing is subject to the GDPR. While we have taken steps to comply with the GDPR, and implementing legislation in applicable EU member states, including by seeking to establish appropriate lawful bases for the various processing activities we carry out as a controller or joint controller, reviewing our security procedures and those of our vendors and collaborators, and entering into data processing agreements with relevant vendors and collaborators, we cannot be certain that our efforts to achieve and remain in compliance have been, and/or will continue to be, fully successful. Given the breadth and depth of changes in data protection obligations, preparing for and complying with the GDPR and similar laws, requirements are rigorous and time intensive and require significant resources and a review of our technologies, systems and practices, as well as those of any third-party collaborators, service providers, contractors or consultants that process or transfer personal data.

In the United States, numerous federal and state laws and regulations, including federal health information privacy laws, state data breach notification laws, state health information privacy laws and federal and state consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act), that govern the collection, use, disclosure and protection of health-related and other personal information could apply to our operations or the operations of our collaborators and third-party providers. For example, California recently enacted the California Consumer Privacy Act, or the CCPA, which became effective on January 1, 2020. The CCPA gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. Additionally, the California Privacy Rights Act, or the CPRA, recently passed in California, which will amend the CCPA to impose additional data protection obligations on companies doing business in California, including additional consumer rights processes, limitations on data uses, new audit requirements for higher risk data, and opt outs for certain uses of sensitive data. It will also create a new California data protection agency authorized to issue substantive regulations and could result in increased privacy and information security enforcement. The majority of the provisions will go into effect on January 1, 2023, and additional compliance investment and potential business process changes may be required. In the United States, states are constantly amending existing laws, requiring attention to frequently changing regulatory requirements.

Many international laws, including the GDPR, require businesses to notify regulators and data subjects in the event of a data breach. Meanwhile, in the United States, all 50 states of the United States require businesses to provide notice to customers whose personal data has been disclosed as a result of a data breach. These laws are not consistent, and compliance in the event of a widespread data breach is costly.

In many jurisdictions, enforcement actions and consequences for non-compliance with protection, privacy and information security laws and regulations are rising. The authorities have shown a willingness to impose significant fines and issue orders preventing the processing of personal data on non-compliant businesses. Data subjects also have a private right of action, as do consumer associations, to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of applicable data protection laws. In the United States, possible consequences for non-compliance include enforcement actions in response to rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies. In addition, privacy advocates

and industry groups have regularly proposed, and may propose in the future, self-regulatory standards that may legally or contractually apply to us. If we fail to follow these security standards, even if no customer information is compromised, we may incur significant fines or experience a significant increase in costs.

The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by applicable regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. The shifting compliance environment and the need to build and maintain robust and expandable systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a healthcare company may run afoul of one or more of the requirements.

The global data protection landscape is rapidly evolving, and implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future. This evolution may create uncertainty in our business, affect our or our CROs', collaborators', service providers' and other contractors' ability to operate in certain jurisdictions or to collect, store, transfer use and share personal information, necessitate the acceptance of more onerous obligations in our contracts, result in liability or impose additional costs on us.

Failure by us or our collaborators and third-party providers to comply with data protection laws and regulations could result in government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business. Moreover, clinical trial subjects about whom we or our potential collaborators 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, failed to comply with data protection laws or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend, could result in adverse publicity and could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks related to our intellectual property

Risks related to protecting our intellectual property

If we fail to comply with our current or future obligations in any agreements under which we may license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our future licensors, we could lose license rights that are important to our business.

We currently are, and in the future may continue to be, party to license or collaboration agreements with third parties to advance our research or allow commercialization of ATL001 or any future product candidates. In particular, we are party to a license agreement, or the CRT Agreement, with Cancer Research Technology Limited, to obtain exclusive and non-exclusive licenses under certain patents, know-how, data, and information relating to a multi-institution study known as the TRACERx Study, focused on advanced NSCLC. We rely on this license for the development of ATL001 and may rely on it for future product candidates, and we rely on the data from TRACERx to continue to improve our PELEUS platform. The CRT Agreement and other future agreements may impose, and may continue to impose, numerous obligations, such as development, diligence, payment, commercialization, funding, milestone, royalty, sublicensing, insurance, patent prosecution, enforcement and other obligations on us and may require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize approved products, in order to maintain the licenses. In spite of our best efforts, our current and future licensors might conclude that we have materially breached our future

license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technologies covered by these license agreements.

Any termination of the CRT Agreement or future licenses, or if the underlying patents or applications fail to provide the intended exclusivity, could result in the loss of significant rights and could harm our ability to commercialize ATL001 and any future product candidates and we may be required to cease our development and commercialization of certain of our product candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Disputes may also arise between us and our future licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe, misappropriate or otherwise violate intellectual property rights of the licensor that are not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations;
- the right to claim priority of invention of any patented technology; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our future licensors and us and our partners.

In addition, the agreements under which we license intellectual property or technology from third parties, and which we may continue to license in the future, are and may be 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 may license in the future prevent or impair our ability to maintain future licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates, which could have a material adverse effect on our business, financial conditions, results of operations and prospects.

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

In addition to the protection afforded by patents we may own or in-license in the future, we seek to rely on trade secret protection, in particular in relation to our proprietary VELOS manufacturing process and PELEUS bioinformatics platform, confidentiality agreements, and license agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product discovery and development processes. Although we require all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information, or technology to enter into confidentiality agreements, trade secrets can be difficult to protect and we have limited control over the protection of trade secrets used by our collaborators and suppliers. We cannot be certain that we have or will obtain these agreements in all circumstances and we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary information.

Moreover, any of these parties might breach the agreements and intentionally or inadvertently disclose our trade secret information and we may not be able to obtain adequate remedies for such breaches. In addition,
competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights and trade secrets to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, financial condition, results of operations and future prospects.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us.

Thus, we may not be able to meaningfully protect our trade secrets, in particular those relating to our proprietary VELOS manufacturing process or PELEUS bioinformatics platform. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual or entity during the course of the party's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary technology by third parties. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. Although we require all of our employees to assign their inventions 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. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Third-party claims of intellectual property infringement, misappropriation or other violations may be costly and time-consuming and may prevent or delay our product discovery and development efforts.

Third parties may initiate legal proceedings alleging that we are infringing, misappropriating, or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business. Our commercial success depends upon our ability to develop or manufacture our current product candidate in the indications we are currently targeting or any follow-on indications as well as any future product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and

pharmaceutical industries, as well as administrative proceedings for challenging patents, including derivation, interference, reexamination, *inter partes* review, and post grant review proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We or any of our future licensors or strategic partners may be party to, exposed to, or threatened with, future adversarial proceedings or litigation by third parties having patent or other intellectual property rights alleging that our current or future product candidates and/or proprietary technologies infringe, misappropriate or otherwise violate their intellectual property rights. We cannot assure you that ATL001 or future product candidates and other technologies that we have developed, are developing or may develop in the future do not or will not infringe, misappropriate or otherwise violate existing or future patents or other intellectual property rights owned by third parties. 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 our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. Moreover, it is not always clear to industry participants, including us, which patents cover various types of products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, there may be a risk that third parties may allege they have patent rights encompassing our product candidates, technologies or methods.

If a third party claims that we infringe, misappropriate or otherwise violate its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement, misappropriation and other intellectual property claims which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business and may impact our reputation;
- substantial damages for infringement, misappropriation or other violations, which we may have to pay if a court decides that the product candidate or technology at issue infringes, misappropriates or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;
- a court order prohibiting us from developing, manufacturing, marketing or selling our product candidates, or from using our proprietary technologies, unless the third party licenses its product rights to us, which it is not required to do, on commercially reasonable terms or at all;
- if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights for our products, or the license to us may be non-exclusive, which would permit third parties to use the same intellectual property to compete with us;
- redesigning our product candidates or processes so they do not infringe, misappropriate or violate third party intellectual property rights, which may not be possible or may require substantial monetary expenditures and time; and
- there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of the ADSs.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition, results of operations or prospects.

We may choose to challenge the patentability of claims in a third party's U.S. patent by requesting that the USPTO review the patent claims in an *ex-parte* re-exam, *inter partes* review or post-grant review proceedings. These proceedings are expensive and may consume our time or other resources. We may choose to challenge a third party's patent in patent opposition proceedings in the EPO, or other foreign patent office. The costs of these opposition proceedings could be substantial, and may consume our time or other resources. If we fail to obtain a favorable result at the USPTO, EPO or other patent office then we may be exposed to litigation by a third party alleging that the patent may be infringed by our product candidates or proprietary technologies.

Third parties may assert that we are employing their proprietary technology without authorization. Patents issued in the United States by law enjoy a presumption of validity that can be rebutted only with evidence that is "clear and convincing," a heightened standard of proof. There may be issued third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Patent applications can take many years to issue. In addition, because some patent applications in the United States may be maintained in secrecy until the patents are issued, patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications covering our product candidates or technology. If any such patent applications issue as patents, and if such patents have priority over our patent applications or patents we may own or in-license, we may be required to obtain rights to such patents owned by third parties which may not be available on commercially reasonable terms or at all, or may only be available on a non-exclusive basis. There may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our product candidates or other technologies, could be found to be infringed by our product candidates or other technologies. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, we may fail to identify relevant patents or incorrectly conclude that a patent is invalid, not enforceable, exhausted, or not infringed by our activities. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our product candidates, molecules used in or formed during the manufacturing process, or any final product itself, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the product candidate unless we obtained a license or until such patent expires or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business. Even if we obtain a license, it may be nonexclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, if the breadth or strength of protection provided by our patent applications or any patents we may own or in-license in the future is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. Defense of these claims, regardless of their merit, could involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement, misappropriation or other violation against us, we may have to pay substantial damages, including treble

damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need or may choose to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

If we are unable to obtain and maintain sufficient patent and other intellectual property protection for ATL001 and any future product candidates and technologies, our competitors could develop and commercialize products and technologies similar or equivalent to ours, and we may not be able to compete effectively in our market or successfully commercialize any product candidates we may develop.

Our success depends in significant part on our ability and the ability of our current or future collaborators and licensors to obtain, maintain, enforce and defend patents and other intellectual property rights with respect to ATL001 and any future product candidates and technology and to operate our business without infringing, misappropriating, or otherwise violating the intellectual property rights of others. If we and our current or future collaborators and licensors are unable to obtain and maintain sufficient intellectual property protection for ATL001 or other future product candidates that we may identify, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors and other third parties could develop and commercialize product candidates similar or equivalent to ours, and our ability to successfully commercialize our product candidates and other product candidates that we may pursue may be impaired.

Further, we may not be successful in obtaining or maintain necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses. Presently we have rights to certain intellectual property, through licenses from third parties and under patent applications that we own or will own, related to use of data and materials from the TRACERx study, the use of clonal neoantigens and T cells in cell therapy, certain processes and devices used in our proprietary VELOS manufacturing process, aspects of our proprietary PELEUS bioinformatics platform and ATL001. Because any future product candidates may require the use of proprietary rights held by third parties, the growth of our business will likely depend in part on our ability to acquire, in-license or use these proprietary rights.

ATL001 and any future product candidates may also require specific formulations to work effectively and efficiently and these rights may be held by others. Similarly, efficient production or delivery of our product candidates may also require specific compositions or methods, and the rights to these may be owned by third parties. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all, which would harm our business. We may need to cease use of the compositions or methods covered by such third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on such intellectual property rights which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license, it may be nonexclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. Moreover, the molecules that may in the future be used with our product candidates may be covered by the intellectual property rights of others.

Additionally, we sometimes collaborate with academic institutions to accelerate our research activities or development under written agreements with these institutions. In certain cases, these institutions provide us

with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program and allowing third parties to compete with us. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business and financial condition could suffer.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies, which may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. There can be no assurance that we will be able to successfully complete such negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to acquire. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business, results of operations, financial condition and prospects could suffer.

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

Periodic maintenance fees, renewal fees, annuity fees and various other government 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 and following the issuance of a patent. While an inadvertent lapse can in some 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. Noncompliance events that could result in abandonment or lapse of a patent include, but are not limited to, failure to respond to official actions or carry out the required acts within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market with similar or equivalent products or platforms, which could have a material adverse effect on our business prospects and financial condition.

If we do not obtain patent term extension and data exclusivity for ATL001 or any future product candidates we may develop, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any of our current or future product candidates we may develop, one or more U.S. patents we may own or in-license in the future may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved

drug, a method for using it, or a method for manufacturing it may be extended. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is shorter than what we request, our competitors may obtain approval of competing products following expiration of any patents that issue from our patent applications, and our business, financial condition, results of operations, and prospects could be materially harmed.

Changes to patent law in the United States and in foreign jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. Recent U.S. Supreme Court rulings 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 would weaken our ability to obtain new patents or to enforce patents that we might obtain in the future. For example, in the case *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.,* the U.S. Supreme Court held that certain claims to DNA molecules are not patentable. Any adverse changes in the patent laws of other jurisdictions could have a material adverse effect on our business and financial condition. Changes in the laws and regulations governing patents in other jurisdictions could similarly have an adverse effect on our ability to obtain and effectively enforce any rights we may have in our patent applications or any patents we may own or in-license in the future.

Recent or future patent reform legislation could also increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any patents we may own or in-license in the future. The United States has enacted and implemented wide-ranging patent reform legislation. On September 16, 2011, the Leahy-Smith America Invents Act, or America Invents Act, was signed into law, which includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation, establish a new post-grant review system and switch the U.S. patent system from a “first-to-invent” system to a “first-to-file” system. Under a “first-to-file” system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to a patent on the invention regardless of whether another inventor had made the invention earlier. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we were the first to either: (i) file any patent application related to our product candidates or other technologies; or (ii) invent any of the inventions claimed in our patent applications or any patents we may own or in-license. These changes also allow third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States 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. An adverse determination in any such proceeding could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Accordingly, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any issued patents we may own or in-license in the future, all of which could have a material adverse effect on our business and financial condition.

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

Our trademarks or trade names may be challenged, infringed, diluted, circumvented or declared generic or determined to be infringing on other marks. We intend to rely on both registration and 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 for name recognition by potential partners or customers in our markets of interest. During the trademark registration process, we may receive Office Actions from the USPTO objecting to the registration of our trademark. Although we would be given an opportunity to respond to those objections, 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/or to seek the cancellation of registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. If we are unable to obtain a registered trademark or 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.

Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights, whether owned or in-licensed, is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The following examples are illustrative:

- patent applications that we own or may in-license in the future may not lead to issued patents;
- patents, should they issue, that we may own or in-license in the future, may not provide us with any competitive advantages, may be narrowed in scope, or may be challenged and held invalid or unenforceable;
- others may be able to develop and/or practice technology that is similar to our technology or aspects of our technology but that is not covered by the claims of any patents we may own or in-license in the future, should any patents issue;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- we, or our future licensors or collaborators, might not have been the first to make the inventions covered by a patent application that we own or may in-license in the future;
- we, or our future licensors or collaborators, might not have been the first to file patent applications covering a particular invention;
- others may independently develop similar or alternative technologies without infringing, misappropriating or otherwise violating our intellectual property rights;

- our competitors might conduct research and development activities in the United States and other countries that provide a safe harbor from patent infringement claims for certain research and development activities, as well as in countries where we do not have patent rights, and may then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not be able to obtain and/or maintain necessary licenses on reasonable terms or at all;
- third parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights, or any rights at all, over that intellectual property;
- 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 trade secrets or know-how;
- we may not be able to maintain the confidentiality of our trade secrets or other proprietary information;
- we may not develop or in-license 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, financial condition, results of operations and prospects.

Risks related to intellectual property litigation

We may be involved in lawsuits to protect or enforce our intellectual property rights, including any patents we may own or in-license in the future, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe any patents we may own or in-license in the future. In addition, any patents we may own or in-license also may become involved in inventorship, priority, validity or unenforceability disputes. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, in an infringement proceeding, a court may decide that one or more of any patents we may own or in-license in the future is not valid or is unenforceable or that the other party's use of our technology that may be patented falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1). There is also the risk that, even if the validity of these patents is upheld, the court may refuse to stop the other party from using the technology at issue on the grounds that any patents we may own or in-license in the future do not cover the technology in question or that such third party's activities do not infringe our patent applications or any patents we may own or in-license in the future. An adverse result in any litigation or defense proceedings could put one or more of any patents we may own or in-license in the future at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. 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. 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, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. 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 conduct such litigation or proceedings adequately. 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. 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.

Post-grant proceedings provoked by third parties or brought by the USPTO may be necessary to determine the validity or priority of inventions with respect to our patent applications or any patents we may own or in-license in the future. These proceedings are expensive and an unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. In addition to potential USPTO review proceedings, we may become a party to patent opposition proceedings in the European Patent Office, or EPO, or similar proceedings in foreign patent offices, where our foreign patents are challenged. The costs of these opposition or similar proceedings could be substantial, and may result in a loss of scope of some claims or a loss of the entire patent. An unfavorable result at the USPTO, EPO or other patent office may result in the loss of our right to exclude others from practicing one or more of our inventions in the relevant country or jurisdiction, which could have a material adverse effect on our business.

Litigation or post-grant proceedings may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent misappropriation of our 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. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of the ADSs.

We may not be able to detect infringement of any patents we may own or in-license in the future. Even if we detect infringement by a third party of any patents we may own or in-license in the future, we may choose not to pursue litigation against or settlement with the third party. If we later sue such third party for patent infringement, the third party may have certain legal defenses available to it, which otherwise would not be available except for the delay between when the infringement was first detected and when the suit was brought. Such legal defenses may make it impossible for us to enforce any patents we may own or in-license against such third party.

Any issued patents we may own or in-license in the future covering ATL001 or any future product candidates could be narrowed or found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad, including the USPTO.

If we or our future licensors or strategic partners initiate legal proceedings against a third party to enforce a patent covering ATL001 or any future product candidates, the defendant could counterclaim that the patent covering our product candidate, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of patentable subject matter, lack of written description, lack of novelty, obviousness, or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, *inter partes* review, post grant review and equivalent proceedings in foreign jurisdictions (such as opposition proceedings). Such proceedings could result in revocation or amendment to our patent applications or any patents we may own or in-license in

the future in such a way that they no longer cover our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, any rights we may have from our patent applications or any patents we may own or in-license in the future, allow third parties to commercialize our product candidates or other technologies and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our priority of invention or other features of patentability with respect to our patent applications and any patents we may own or in-license. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or equivalent technology and products, or limit the duration of the patent protection of our product candidates and other technologies. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our future licensing partners and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, or if we are otherwise unable to adequately protect our rights, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize or license our technology and product candidates.

Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us. If we are unsuccessful in any such proceeding or other priority or inventorship dispute, we may be required to obtain and maintain licenses from third parties, including parties involved in any such interference proceedings or other priority or inventorship disputes. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture, and commercialization of one or more of the product candidates we may develop. The loss of exclusivity or the narrowing of our patent application claims could limit our ability to stop others from using or commercializing similar or equivalent technology and products. Any of the foregoing could have a material adverse effect on our business, results of operations, financial condition and prospects.

We may be subject to claims challenging the inventorship or ownership of any intellectual property, including any patents we may own or in-license in the future.

We may be subject to claims that former employees, collaborators or other third parties have an interest in any patents we may own or in-license in the future, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing ATL001 or any future product candidates or other technologies. We generally enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and contractors. These agreements generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, those agreements may not be honored and may not effectively assign intellectual property rights to us. Moreover, there may be some circumstances, where we are unable to negotiate for such ownership rights. Disputes regarding ownership or inventorship of intellectual property can also arise in other contexts, such as collaborations and sponsored research. If we are subject to a dispute challenging our rights in or to patents or other intellectual property, such a dispute could be expensive and time-consuming. Litigation may be necessary to defend against these and other claims challenging inventorship of any patents we may own or in-license in the future, trade secrets or other intellectual property. If we were unsuccessful, in addition to paying monetary damages, we could lose valuable rights in intellectual property that we regard as our own, such as exclusive ownership of, or right to

use, intellectual property that is important to our product candidates and other technologies. 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. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information or alleged trade secrets of third parties or competitors or are in breach of non-competition or non-solicitation agreements with our competitors.

We have received confidential and proprietary information from third parties. In addition, as is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors, in some cases until recently. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information or trade secrets of these third parties or our employees' former employers or our consultants' or contractors' current or former clients or customers. In addition, we may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation or arbitration may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation or other legal proceedings relating to intellectual property claims and possible aftermath could result in substantial cost and be a distraction to our management and employees. Any litigation or the threat thereof may adversely affect our ability to hire employees.

A loss of key personnel or their work product could hamper or prevent our ability to commercialize product candidates, which could have an adverse effect on our business, results of operations and financial condition. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of the ADSs. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other intellectual property-related proceedings could adversely affect our ability to compete in the marketplace.

Risks related to our reliance on third parties

We rely on third parties to conduct certain of our research and clinical trials. If these third parties do not properly and successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval of or commercialize our product candidates.

We utilize and depend upon independent investigators and collaborators, such as medical institutions, CROs, CMOs, and strategic partners to conduct and support certain of our research activities and clinical trials under agreements with us.

We expect to have to continue to negotiate budgets and contracts with CROs, trial sites and CMOs and we may not be able to do so on favorable terms, which may result in delays to our development timelines and increased costs. We will rely heavily on these third parties over the course of our research activities and clinical trials, and we control only certain aspects of their activities. As a result, we will have less direct control over the conduct,

timing and completion of these research activities and clinical trials and the management of data developed through research activities and clinical trials than would be the case if we were relying entirely upon our own staff. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with applicable protocol, legal and regulatory requirements and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities. We and these third parties are required to comply with good clinical practices, or GCPs, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of these third parties fail to comply with applicable GCP regulations, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, such regulatory authorities will determine that any of our clinical trials comply with the GCP regulations. In addition, supplies of our product candidates used in our clinical trials must be manufactured under good manufacturing practices, or cGMP, regulations. Our failure or any failure by these third parties to comply with these regulations or to recruit a sufficient number of patients may require us to repeat clinical trials, which would delay the regulatory approval process. Moreover, our business may be implicated if any of these third parties performing services or otherwise acting on our behalf violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Any third parties conducting our clinical trials are not and will not be our employees and, except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our ongoing clinical and preclinical product candidates. These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other product development activities, which could affect their performance on our behalf. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to complete development of, obtain regulatory approval of or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

Switching or adding third parties to conduct our research and clinical trials involves substantial cost and requires extensive management time and focus. In addition, there is a natural transition period when a new third party commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. If we engage directly with third-party CROs and CMOs, we may incur additional costs or experience delays.

Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee fraud or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and negligent conduct that fails to: comply with the regulations of the FDA and other comparable foreign regulatory bodies, provide true, complete and accurate information to the FDA and other comparable foreign regulatory bodies, comply with manufacturing standards we have established, comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain FDA approval

of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws and regulations will increase significantly, and our costs associated with compliance with such laws and regulations are also likely to increase. These laws may impact, among other things, our current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commission(s), certain customer incentive programs and other business arrangements generally.

Effective upon the closing of this offering, we will adopt a code of business conduct and ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent inappropriate conduct 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 be in compliance with such laws or regulations.

We may form or seek additional collaborations or strategic alliances or enter into additional licensing arrangements in the future, and we may not realize the benefits of such collaborations, alliances or licensing arrangements.

We may form or seek additional strategic alliances, create joint ventures or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our product candidates and any future product candidates that we may develop. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing shareholders or disrupt our management and business.

In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for ATL001 and any future product candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our product candidates as having the requisite potential to demonstrate safety, potency, purity and efficacy and obtain marketing approval.

Further, collaborations involving ATL001 and any future product candidates are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization of our product candidates based on clinical trial results, changes in their strategic focus due to the acquisition of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates;

- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our product candidates, or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

As a result, if we enter into additional collaboration agreements and strategic partnerships or license ATL001 or any future product candidates, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. Any delays in entering into new collaborations or strategic partnership agreements related to ATL001 or any future product candidates could delay the development and commercialization of our product candidates in certain geographies for certain indications, which would harm our business prospects, financial condition and results of operations.

Risks related to employee matters, managing our growth and other risks

Risks related to our employee matters

We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on our key management, scientific and technical personnel, many of whom have been instrumental for us and have substantial experience in our therapies and related technologies.

The loss of the services of any of our executive officers, other key employees and other scientific and medical advisors, and an inability to find suitable replacements could result in delays in product development and harm our business.

To encourage valuable employees to remain at our company, in addition to salary, bonus scheme and our benefits package, we have provided shares for some United Kingdom based employees and share options for U.S. and some United Kingdom based employees that vest over time. The value to employees of shares and share options that vest over time may be significantly affected by movements in our share price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management, scientific and development teams may terminate their employment with us on short notice. Our success also depends on our

ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel. To date this success has been geared towards building an attractive employee value proposition which puts culture at the heart of how we engage our people, This focus on soft retention elements has worked well to date and we are now beginning to explore wider incentive mechanisms to be in-line with the market.

Risks related to our business operations and growth

Insurance policies are expensive and 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. Some of the policies we currently maintain include general liability, employment practices liability, travel, property, umbrella, and directors' and officers' insurance.

Insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or 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.

We also expect that operating as a public company 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, 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 would adversely affect our cash position and results of operations.

The current outbreak of novel coronavirus, or COVID-19, has caused, and could continue to cause, severe disruptions in the global economy and could seriously harm our development efforts, increase our costs and expenses and have a material adverse effect on our business, financial condition and results of operations.

Broad-based business or economic disruptions could adversely affect our ongoing or planned research and development activities. For example, in December 2019, an outbreak of a novel strain of coronavirus, which causes coronavirus disease, or COVID-19, was reported to have surfaced in Wuhan, China, and in March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. The pandemic and government measures taken in response have had a significant impact, both direct and indirect, on businesses and commerce, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; 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. There is a risk that government actions will not be effective at containing COVID-19 or other infectious diseases, and that government actions, including the orders and restrictions described above, that are intended to contain the spread of COVID-19 will have a devastating negative impact on the world economy at large, in which case the risks to our sales, operating results and financial condition described herein would be elevated significantly.

As a result of the COVID-19 pandemic, we have experienced and we expect to continue to experience disruptions that could severely impact our business, research and clinical trials, including:

- continued delays or difficulties in enrolling and retaining patients in our clinical trials;
- continued delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- delays in receiving authorizations from regulatory authorities to initiate our planned clinical trials;
- 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 of key clinical trial activities, such as clinical trial site data monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others or interruption of clinical trial subject visits and study procedures (such as endoscopies that are deemed non-essential), which may impact the integrity of subject data and clinical trial endpoints;
- risk that participants enrolled in our clinical trials will contract 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;
- risk that we are unable to enroll participants in our clinical trials in adequate numbers;
- interruption or delays in the operations of the FDA or other regulatory authorities, which may impact review and approval timelines;
- interruption of, or delays in, our manufacturing supply chain, including any inability to access or run the GMP manufacturing facility at the Royal Free Hospital;
- interruptions in research activities due to restricted or limited operations at our laboratory facility;
- delays in necessary interactions with local regulators, ethics committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees;
- changes in local regulations as part of a response to the COVID-19 pandemic, which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue such clinical trials altogether;
- limitations on employee resources that would otherwise be focused on the conduct of our research 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; and
- interruption or delays to our sourced discovery and clinical activities.

The global COVID-19 pandemic continues to rapidly evolve. The extent to which COVID-19 ultimately impacts our business, results of operations and financial condition will depend on future developments, which remain highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease,
duration of the outbreak, travel restrictions, new information that may emerge concerning the severity of COVID-19 or the effectiveness of actions taken in the United States and other countries to contain the pandemic or treat its impact, among others. In addition, recurrences or additional waves of COVID-19 cases could cause other widespread or more severe impacts depending on where infection rates are highest. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties with whom we engage, including the suppliers, clinical trial sites, service providers, regulators and other

third parties with whom we conduct business, were to experience prolonged business shutdowns or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially or negatively impacted, which could have a material adverse impact on our business, results of operations and financial condition.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

As of December 31, 2020, we had 153 full-time employees and six part-time employees. As our development and commercialization plans and strategies develop, and as we transition into operating as a public company, we expect to need additional managerial, operational, sales, marketing, financial and other personnel, as well as additional facilities to expand our operations. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, including the clinical and FDA review process for our product candidates, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to commercialize ATL001 and any future product candidates will depend, in part, on our ability to effectively manage any future growth, and our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

If we are not able to effectively expand our organization by hiring new employees, consultants and/or contractors, or we are not able to effectively build out new facilities to accommodate this expansion, we may not be able to successfully implement the tasks necessary to further develop and commercialize ATL001 and any future product candidates and, accordingly, may not achieve our research, development and commercialization goals.

Risks related to our international operations

A variety of risks associated with operating our business internationally could materially adversely affect our business.

We plan to seek regulatory approval of ATL001 and any future product candidates outside of the United States and, accordingly, we expect that we, and any potential collaborators in those jurisdictions, will be subject to additional risks related to operating in foreign countries, including:

- differing regulatory requirements in foreign countries;
- unexpected changes in tariffs, trade barriers, price and exchange controls, and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration, and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;

- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the FCPA, Office of Foreign Assets Control Anti-Money Laundering Program as required by the Bank Secrecy Act and its implementing regulations, or comparable foreign laws;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with our planned international operations may materially adversely affect our ability to attain or maintain profitable operations.

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

Our business is subject to risks associated with conducting business internationally. Accordingly, our future results could be harmed by a variety of factors, including the following:

- economic weakness, including inflation, political instability in particular in foreign economies and markets, and the potentially severe continued global economic impact caused by the COVID-19 pandemic;
- differing regulatory requirements for drug approvals;
- differing jurisdictions potentially presenting different issues for securing, maintaining or obtaining freedom to operate in such jurisdictions;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with different, complex and changing laws, regulations and court systems of multiple jurisdictions and compliance with a wide variety of foreign laws, treaties and regulations;
- changes in regulations and customs, tariffs and trade barriers;
- changes in currency exchange rates of the pound sterling, euro, U.S. dollar and currency controls;
- changes in a specific country’s or region’s political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by governments;
- differing reimbursement regimes and price controls in certain international markets;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States, United Kingdom and EU;
- difficulties associated with staffing and managing international operations, including differing labor relations;

- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war, terrorism, pandemics, or natural disasters including earthquakes, typhoons, floods and fires.

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

We are incorporated under the laws of England and Wales. Most of the members of our senior management and certain members of our board of directors are non-residents of the United States, and all or a substantial portion of our assets and the assets of such persons are located outside the United States. As a result, it may not be possible to serve process on such persons or us in the United States or to enforce judgments obtained in U.S. courts against them or us based on civil liability provisions of the U.S. federal securities laws.

The United States and the United Kingdom do not currently have a treaty providing for recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Consequently, a final judgment for payment given by a court in the United States, whether or not predicated solely upon U.S. securities laws, would not automatically be recognized or enforceable in the United Kingdom. In addition, uncertainty exists as to whether the courts of England and Wales would entertain original actions brought in the United Kingdom against us or our directors or senior management predicated upon securities laws of the U.S. or any state in the United States. Any final and conclusive monetary judgment for a definite sum obtained against us in U.S. courts would be treated by the courts of England and Wales as a cause of action in itself and sued upon as a debt at common law so that no retrial of the issues would be necessary, provided that certain requirements are met. Whether these requirements are met in respect of a judgment based upon the civil liability provisions of the U.S. securities laws, including whether the award of monetary damages under such laws would constitute a penalty, is an issue for the court making such decision. If the courts of England and Wales give a judgment for the sum payable under a U.S. judgment, the English judgment will be enforceable by methods generally available for this purpose. These methods generally permit the courts of England and Wales discretion to prescribe the manner of enforcement.

As a result, U.S. investors may not be able to enforce against us or certain of our directors any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the U.S. federal securities laws.

Fluctuations in the exchange rate between the U.S. dollar and the pound sterling may increase the risk of holding the ADSs and may materially affect our results of operations and financial condition.

The ADSs will trade on Nasdaq in U.S. dollars. Due to the international scope of our operations, our assets, earnings and cash flows are influenced by movements in exchange rates of several currencies, particularly the U.S. dollar, the pound sterling and the euro. Our reporting currency is denominated in U.S. dollars and our functional currency is the pound sterling (except that the functional currency of our U.S. subsidiaries is the U.S. dollar) and the majority of our operating expenses are paid in pound sterling. We also regularly acquire services, consumables and materials in U.S. dollars and the euro. Further potential future revenue may be derived from abroad, particularly from the United States. As a result, our business and the price of the ADSs may be affected by fluctuations in foreign exchange rates between the pound sterling and these other currencies, which may also have a significant impact on our results of operations and cash flows from period to period. Currently, we do not have any exchange rate hedging arrangements in place. See Note 2 in the notes to our annual financial statements appearing elsewhere in this prospectus for a description of foreign exchange risks.

The possible abandonment of the euro by one or more members of the European Union, or the EU, could materially affect our business in the future. Despite measures taken by the EU to provide funding to certain EU member states in financial difficulties and by a number of European countries to stabilize their economies and reduce their debt burdens, it is possible that the euro could be abandoned in the future as a currency by countries that have adopted its use. This could lead to the re-introduction of individual currencies in one or more EU member states, or in more extreme circumstances, the dissolution of the EU. The effects on our business of a potential dissolution of the EU, the exit of one or more EU member states from the EU or the abandonment of the euro as a currency, are impossible to predict with certainty, and any such events could have a material adverse effect on our business, financial condition and results of operations.

In addition, as a result of fluctuations in the exchange rate between the U.S. dollar and the pound sterling, the U.S. dollar equivalent of the proceeds that a holder of ADSs would receive upon the sale in the United Kingdom of any ordinary shares withdrawn from the depositary and the U.S. dollar equivalent of any cash dividends paid in pounds sterling on our ordinary shares represented by ADSs could also decline.

Risks related to this offering and ownership of the ADSs

Risks related to this offering

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

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled “Use of proceeds,” and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses, cause the price of the ADSs or ordinary shares to decline, and delay the development of ATL001 and any future product candidates. 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 you purchase the ADSs in this offering, you will incur immediate and substantial dilution in the book value of your shares.

We expect the initial public offering price of the ADSs in this offering to be substantially higher than the net tangible book value per share of the ADSs prior to this offering. Investors purchasing ADSs in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. To the extent outstanding options are exercised for ordinary shares, investors may experience further dilution. Based on the initial public offering price of $18.00 per ADS, investors purchasing ADSs in this offering will incur immediate dilution of $9.39 per share. Further, investors purchasing ADSs in this offering will contribute 43% of the total amount invested by shareholders since our inception, but will own only 24% of the total number of ordinary shares (including ordinary shares in the form of ADSs) outstanding after this offering.

For a further description of the dilution that you will experience immediately after this offering, see the section of this prospectus entitled “Dilution.”

The price of the ADSs may be volatile and may fluctuate due to factors beyond our control, and you could lose all or part of your investment.

The trading price of the ADSs following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control, including limited trading

volume. In addition to the factors discussed in this “Risk factors” section and elsewhere in this prospectus, these factors include:

- the results of our ongoing, planned or any future research, clinical trials or clinical development programs;
- the commencement, enrollment, or results of clinical trials of our current programs, additional follow-on indications for ATL001 and any future clinical trials we may conduct, or changes in the development status of our product candidates;
- adverse results or delays in research and clinical trials;
- our decision to initiate a clinical trial, not to initiate a clinical trial, or to terminate an existing clinical trial;
- any delay in our regulatory filings or any adverse regulatory decisions, including failure to receive regulatory approval of ATL001 or any future product candidates;
- changes in laws or regulations applicable to our products, including but not limited to clinical trial requirements for approvals;
- adverse developments concerning our manufacturers or our manufacturing plans;
- our inability to obtain adequate product supply for any approved product or inability to do so at acceptable prices;
- our inability to establish collaborations if needed;
- our failure to commercialize our product candidates;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to the use of our product candidates;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- the size and growth of our initial cancer target markets;
- our ability to successfully treat additional types of cancers or at different stages;
- actual or anticipated variations in quarterly operating results;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or immunotherapy in particular, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies;
- overall performance of the equity markets;
- sales of the ADSs by us or our shareholders in the future;

- trading volume of the ADSs;
- changes in accounting practices;
- ineffectiveness of our internal controls;
- disputes or other developments relating to intellectual property or proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including intellectual property or shareholder litigation;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and the market for biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of the ADSs, regardless of our actual operating performance. If the market price of the ADSs after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources, which would harm our business, financial condition, results of operation and future prospects.

Risks related to ownership of the ADSs

We do not know whether an active, liquid and orderly trading market will develop for the ADSs or what the market price of the ADSs will be and, as a result, it may be difficult for you to sell your ADSs at or above the initial public offering price.

Prior to this offering, there was no public trading market for the ADSs. Although our ADSs have been approved for listing on Nasdaq, an active trading market for our shares may never develop or be sustained following this offering. You may not be able to sell your ADSs quickly or at the market price if trading the ADSs is not active. The initial public offering price for the ADSs will be determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of the ADSs after the offering. As a result of these and other factors, you may be unable to resell your shares of the ADSs at or above the initial public offering price. Further, an inactive market may also impair our ability to raise capital by selling the ADSs and may impair our ability to enter into strategic partnerships or acquire companies or products by using the ADSs as consideration.

Our principal shareholders and management own a significant percentage of the ADSs and will be able to exert significant influence over matters subject to shareholder approval.

Prior to this offering, our executive officers, directors, and 5% shareholders beneficially owned approximately 71.7% of our voting shares as of February 28, 2021, and, assuming the sale by us of 9,750,000 ADSs in this offering, based on the initial public offering price of $18.00 per share, and not accounting for any shares purchased in this offering by certain of our existing shareholders (or their affiliates), we anticipate that same group will hold approximately 54.5% of our outstanding voting shares following this offering (assuming no exercise of the underwriters' option to purchase additional shares), without giving effect to any purchases that certain of these holders may make through our directed share program. Therefore, even after this offering,

these shareholders will have the ability to influence us through this ownership position. These shareholders may be able to determine all matters requiring shareholder approval. For example, these shareholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for the ADSs that you may feel are in your best interest as one of our shareholders.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for the ADSs will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for the ADSs would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrades the ADSs or publishes inaccurate or unfavorable research about our business, the price of the ADSs may decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for the ADSs could decrease, which might cause the price of the ADSs and trading volume to decline.

We are an emerging growth company and a smaller reporting company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies and smaller reporting companies will make the ADSs less attractive to investors.

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an “emerging growth company” may take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Therefore, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this extended transition period and, as a result, we may adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-public companies instead of the dates required for other public companies. However, the Company may early adopt these standards.

In addition, as an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- the ability to present only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s discussion and analysis of financial condition and results of operations” disclosure;
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act; and
- an exemption from new or revised financial accounting standards until they would apply to private companies and from compliance with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation.

We may take advantage of these exemptions for up to the last day of the fiscal year ending after the fifth anniversary of this offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of: (1) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (2) the last day of our fiscal year following

the fifth anniversary of the date of the completion of this offering; (3) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (4) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these exemptions.

We qualify as a foreign private issuer and, as a result, we will not be subject to U.S. proxy rules and will be subject to reporting obligations under the Securities Exchange Act of 1934, as amended, that, to some extent, permit less detailed and frequent reporting than that of a U.S. domestic public company.

Upon the closing of this offering, we will report under the Securities Exchange Act of 1934, as amended, or the Exchange Act, as a non-U.S. company with foreign private issuer status. Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic public companies, including: (i) the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act; (ii) the sections of the Exchange Act requiring insiders to file public reports of their share ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and (iii) 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, foreign private issuers are not required to file their annual report on Form 20-F until 120 days after the end of each fiscal year, while U.S. domestic issuers that are accelerated filers are required to file their annual report on Form 10-K within 75 days after the end of each fiscal year. Foreign private issuers are also exempt from the Regulation Fair Disclosure, aimed at preventing issuers from making selective disclosures of material information. As a result of the above, you may not have the same protections afforded to shareholders of companies that are not foreign private issuers, some investors may find the ADSs less attractive, and there may be a less active trading market for the ADSs.

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

We are entitled to rely on a provision in Nasdaq's corporate governance rules that allows us to follow English corporate law and the United Kingdom Companies Act 2006, or the Companies Act 2006, with regard to certain aspects of corporate governance, known as home country governance practices. Following our home country governance practices allows us to follow English corporate law and the Companies Act 2006 with regard to certain corporate governance matters as opposed to the requirements that would otherwise apply to U.S. companies listed on Nasdaq and may provide less protection to our shareholders than what is accorded to investors under the Nasdaq rules applicable to domestic U.S. issuers.

As a foreign private issuer, we are exempt from the rules and regulations under the Exchange Act related to the furnishing and content of proxy statements. Our officers, directors and principal shareholders are also exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file reports and financial statements with the SEC as frequently or as promptly as U.S. domestic companies whose securities are registered under the Exchange Act and we are exempt from filing quarterly reports with the SEC under the Exchange Act. Moreover, we are not required to comply with Regulation Fair Disclosure, which restricts the selective disclosure of material information. These exemptions and leniencies will reduce the frequency and scope of information and protections to which you may otherwise have been eligible in relation to a U.S. domestic issuer.

In accordance with our Nasdaq listing, our audit committee is required to comply with the provisions of Section 301 of the Sarbanes-Oxley Act, and Rule 10A-3 of the Exchange Act. Because we are a foreign private

issuer, however, our audit committee is not subject to additional Nasdaq requirements applicable to listed U.S. companies, including an affirmative determination that all members of the audit committee are "independent," using more stringent criteria than those applicable to us as a foreign private issuer. Furthermore, Nasdaq's corporate governance rules require listed U.S. companies to, among other things, seek shareholder approval for the implementation of certain equity compensation plans and issuances of ordinary shares, which we are not required to follow as a foreign private issuer. Therefore, our shareholders may be afforded less protection than they otherwise would have under corporate governance listing standards applicable to U.S. domestic issuers.

We may lose our foreign private issuer status which would then require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses.

While we currently qualify as a foreign private issuer, the determination of foreign private issuer status is made annually on the last business day of an issuer's most recently completed second fiscal quarter and, accordingly, the next determination will be made with respect to us on June 30, 2021.

In the future, we would lose our foreign private issuer status if we to fail to meet the requirements necessary to maintain our foreign private issuer status as of the relevant determination date. For example, if more than 50% of our securities are held by U.S. residents and more than 50% of the members of our executive committee or members of our board of directors are residents or citizens of the United States, we could lose 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 more than 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. 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 such as the ones described above and exemptions from procedural requirements related to the solicitation of proxies.

We will incur increased costs as a result of operating as a company listed in the U.S., and our board of directors will be required to devote substantial time to new compliance initiatives and corporate governance practices.

As a company listed in the U.S., and particularly after we no longer qualify as an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of Nasdaq, and other applicable securities rules and regulations impose various requirements on foreign reporting public companies, including the establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our board of directors, management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more 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 members of 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.

Pursuant to Section 404 of the Sarbanes-Oxley Act, or Section 404, we will be required to furnish a report by our board of directors on our internal control over financial reporting. However, while we remain an emerging

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

Sales of a substantial number of shares of the ADSs by our existing shareholders in the public market could cause the price of the ADSs to fall.

If our existing shareholders sell, or indicate an intention to sell, substantial amounts of the ADSs in the public market after the lockup and other legal restrictions on resale discussed in this prospectus lapse, the trading price of the ADSs could decline. Upon the closing of this offering, we will have outstanding a total of 40,603,489 ordinary shares (including ordinary shares in the form of ADSs). Of these shares, only the ADSs sold in this offering by us, plus any ordinary shares sold in the form of ADSs upon exercise of the underwriters' option to purchase additional ADSs, will be freely tradable without restriction in the public market immediately following this offering. In connection with this offering, our officers, directors and substantially all of our shareholders have agreed to be subject to a contractual lock-up with the underwriters, which will expire 180 days after the date of this prospectus.

The lock-up agreements contain important exceptions that govern their applicability. BofA Securities, Inc., J.P. Morgan Securities LLC and Piper Sandler & Co. however, may, in their sole discretion, permit our officers, directors and other shareholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

In addition, ADSs that are either subject to outstanding options or reserved for future issuance under our 2021 Omnibus Plan and 2021 Employee Share Purchase Plan, each of which became effective upon the effectiveness of the registration statement of which this prospectus forms a part, will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act of 1933, as amended, or the Securities Act. If these additional ADSs are sold, or if it is perceived that they will be sold, in the public market, the trading price of the ADSs could decline.

After this offering, the holders of 30,853,489 ADSs will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the 180-day lock-up agreements described above. See "Description of share capital and articles of association—Registration rights." Registration of these shares under the Securities Act would result in such shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these shareholders could have a material adverse effect on the trading price of the ADSs.

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.

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 or other deposited securities after deducting its fees and expenses. You would 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 take any other action to permit distribution on the 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.

We do not intend to pay dividends on the ADSs, so any returns will be limited to the value of our ordinary shares.

We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In addition, we may enter into agreements that prohibit us from paying cash dividends without prior written consent from our contracting parties, or which include other terms prohibiting or limiting the amount of dividends that may be declared or paid on the ADSs. Furthermore, under the Companies Act 2006, a company's accumulated realized profits, so far as not previously utilized by distribution or capitalization, must exceed its accumulated realized losses so far as not previously written off in a reduction or reorganization of capital duly made (on a non-consolidated basis), before dividends can be paid. In the future, were our dividend policy to change, a dividend or distribution may still be restricted from being declared and paid. For these reasons, any return to shareholders may therefore be limited to the appreciation of their shares, which may never occur.

Holders of the ADSs will not have the same voting rights as the holders of our ordinary shares, and may not receive voting materials or any other documents that would need to be provided to our shareholders pursuant to English corporate law, including the Companies Act 2006, in time to be able to exercise their right to vote.

Except as described elsewhere in this prospectus and the deposit agreement, holders of the ADSs will not be able to exercise voting rights attaching to the ordinary shares represented by the ADSs. The deposit agreement provides that, upon receipt of notice of any meeting of holders of our ordinary shares, the depositary will fix a record date for the determination of ADS holders who shall be entitled to give instructions for the exercise of voting rights. Upon our request, the depositary shall distribute to the holders as of the record date: (i) the notice of the meeting or solicitation of consent or proxy sent by us; and (ii) a statement as to the manner in which instructions may be given by the holders. We cannot guarantee that ADS holders will receive the voting materials in time to ensure that they can instruct the depositary to vote the ordinary shares underlying their ADSs.

Otherwise, ADS holders will not be able to exercise their right to vote, unless they cancel the ADSs and withdraw the ordinary shares underlying the ADSs they hold. However, ADS holders may not know about the meeting far enough in advance to cancel the ADSs and withdraw those ordinary 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. As a result, ADS holders may not be able to exercise their right to vote, and there may be nothing they can do if the ordinary shares underlying their ADSs are not voted as they requested or if their shares cannot be voted.

Holders of ADSs may not be able to participate in equity offerings we may conduct from time to time.

Certain shareholders and holders of ADSs, including those in the United States, may, even in the case where preferential subscription rights have not been cancelled or limited, not be entitled to exercise such rights, unless the offering is registered or the ordinary shares are qualified for sale under the relevant regulatory framework. As a result, there is the risk that investors may suffer dilution of their holdings should they not be permitted to participate in preference right equity or other offerings that we may conduct in the future.

Holders of ADSs may be subject to limitations on the transfer of their 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 the right of ADS holders to cancel their ADSs and withdraw the underlying ordinary shares. Temporary delays in the cancellation of your ADSs and withdrawal of the underlying ordinary shares may arise because the depositary has closed its transfer books or we have closed our transfer books, the transfer of ordinary shares is blocked to permit voting at a shareholders meeting or we are paying a dividend on our ordinary shares. In addition, ADS holders may not be able to cancel their ADSs and withdraw the underlying ordinary shares when they 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—Share dividends and distributions—How will I receive dividends and other distributions on the ordinary shares underlying my ADSs—Rights to receive additional ordinary shares.”

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

The deposit agreement governing the ADSs representing our ordinary shares provides that, to the fullest extent permitted by law, owners and holders of ADSs irrevocably waive the right to a jury trial of any claim they may have against us or the depositary arising out of or relating to the ADSs or the deposit agreement.

If this jury trial waiver provision is not permitted by applicable law, an action could proceed under the terms of the deposit agreement with a jury trial. If we or the depositary opposed a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable based on the facts and circumstances of that case in accordance with the applicable state and federal law. To our knowledge, the enforceability of a contractual pre-dispute jury trial waiver in connection with claims arising under the federal securities laws has not been finally adjudicated by the United States Supreme Court. However, we believe that a contractual pre-dispute jury trial waiver provision is generally enforceable, including under the laws of the State of New York, which govern the deposit agreement, by a federal or state court in the City of New York, which has non-exclusive jurisdiction over matters arising under the deposit agreement. In determining whether to enforce a contractual pre-dispute jury trial waiver provision, courts will generally consider whether a party knowingly, intelligently and voluntarily waived the right to a jury trial. We believe that this is the case with respect to the deposit agreement and the ADSs. It is advisable that you consult legal counsel regarding the jury waiver provision before entering into the deposit agreement.

If you or any other holders or beneficial owners of ADSs bring a claim against us or the depositary in connection with matters arising under the deposit agreement or the ADSs, including claims under federal securities laws, 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 depositary. If a lawsuit is brought against us and/or the depositary under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different outcomes 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.

No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depositary of compliance with U.S. federal securities laws and the rules and regulations promulgated thereunder.

ADS holders have limited choice of forum, which could limit your ability to obtain a favorable judicial forum for complaints against us, the depositary or our respective directors, officers or employees.

The deposit agreement governing the ADSs provides that: (i) the deposit agreement and the ADSs will be interpreted in accordance with the laws of the State of New York; and (ii) as an owner of ADSs, you irrevocably agree that any legal action arising out of the deposit agreement and the ADSs involving us or the depositary may only be instituted in a state or federal court in the city of New York. Any person or entity purchasing or otherwise acquiring any the ADSs, whether by transfer, sale, operation of law or otherwise, shall be deemed to have notice of and have irrevocably agreed and consented to these provisions. This choice of forum provision may increase your cost and limit your ability to bring a claim in a judicial forum that you find favorable for disputes with us, the depositary or our and the depositary's respective directors, officers or employees, which may discourage such lawsuits against us, the depositary and our and the depositary's respective directors, officers or employees. However, it is possible that a court could find such choice of forum provisions to be inapplicable or unenforceable. The enforceability of similar choice of forum provisions has been challenged in legal proceedings. It is possible that a court could find this type of provisions to be inapplicable or unenforceable.

To the extent that any such claims may be based upon federal law claims, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Accordingly, actions by our ADS holders to enforce any duty or liability created by the Exchange Act, the Securities Act or the respective rules and regulations thereunder must be brought in a federal court in the city of New York. Our ADS holders will not be deemed to have waived our compliance with the federal securities laws and the regulations promulgated thereunder.

As an English public limited company, certain capital structure decisions will require shareholder approval, which may limit our flexibility to manage our capital structure.

English law provides that a board of directors may only allot shares (or grant rights to subscribe for or to convert any security into shares) with the prior authorization of shareholders, either pursuant to an ordinary resolution or as set out in the articles of association adopted from time to time with the approval of our shareholders. This authorization must state the aggregate nominal amount of shares that it covers, can be valid up to a maximum period of five years and can be varied, renewed or revoked by shareholders. Such authority

from our shareholders to allot additional shares for a period of five years from March 15, 2021 was included in the ordinary resolution passed by our shareholders on March 15, 2021, which authorization will need to be renewed upon expiration (i.e., at least every five years) but may be sought more frequently for additional five-year terms (or any shorter period).

English law also generally provides shareholders with preemptive rights when new shares are issued for cash. However, it is possible for the Articles, or for shareholders to pass a special resolution at a general meeting, being a resolution passed by at least 75% of the votes cast, to disapply preemptive rights. Such a disapplication of preemptive rights may be for a maximum period of up to five years from the date of adoption of the Articles, if the disapplication is contained in the Articles, but not longer than the duration of the authority to allot shares to which this disapplication relates or from the date of the shareholder special resolution, if the disapplication is by shareholder special resolution. In either case, this disapplication would need to be renewed by our shareholders upon its expiration (i.e., at least every five years). Such authority from our shareholders to disapply preemptive rights for a period of five years was included in the special resolution passed by our shareholders on March 15, 2021, which disapplication will need to be renewed upon expiration (i.e., at least every five years) to remain effective, but may be sought more frequently for additional five-year terms (or any shorter period).

English law also generally prohibits a public company from repurchasing its own shares without the prior approval of its shareholders by ordinary resolution, being a resolution passed by a simple majority of votes cast, and other formalities. Such approval may be provided for a maximum period of up to five years.

General risk factors

Our internal computer systems, or those used by our third-party CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of the development programs of our product candidates.

Despite the implementation of security measures, our internal computer systems and those of our current and future CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, and telecommunication and electrical failures. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. While we have not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations, such as the loss of clinical trial data from completed or future clinical trials. Such loss could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we may rely on third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. Any breach in our information technology systems could lead to the unauthorized access, disclosure and use of non-public information, including information from our patient registry or other patient information, which is protected by data privacy and security laws. Any such access, disclosure, or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, damage to our reputation and the further development and commercialization of our product candidates could be delayed.

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

Our operations, and those of our CROs, CMOs and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

Unstable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. The most recent global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, including due to the impact of the COVID-19 pandemic, could result in a variety of risks to our business, including a reduced ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy or international trade disputes could also strain our third-party suppliers, possibly resulting in supply disruption. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

We may be unable to adequately protect our information systems from cyber-attacks, which could result in the disclosure of confidential or proprietary information, including personal data, damage our reputation, and subject us to significant financial and legal exposure.

We rely on information technology systems that we or our third-party providers operate to process, transmit and store electronic information in our day-to-day operations. In connection with our product discovery efforts, we may collect and use a variety of personal data, such as name, mailing address, email addresses, phone number and clinical trial information. A successful cyber-attack could result in the theft or destruction of intellectual property, data, or other misappropriation of assets, or otherwise compromise our confidential or proprietary information and disrupt our operations. Cyber-attacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyber-attacks could include wrongful conduct by hostile foreign governments, industrial espionage, wire fraud and other forms of cyber fraud, the deployment of harmful malware, denial-of-service, social engineering fraud or other means to threaten data security, confidentiality, integrity and availability. A successful cyber-attack could cause serious negative consequences for us, including, without limitation, the disruption of operations, the misappropriation of confidential business information, including financial information, trade secrets, financial loss and the disclosure of corporate strategic plans. Although we devote resources to protect our information systems, we realize that cyber-attacks are a threat, and there can be no assurance that our efforts will prevent information security breaches that would result in business, legal, financial or reputational harm to us, or would have a material adverse effect on our results of operations and financial condition. Any failure to prevent or mitigate security breaches or improper access to, use of, or disclosure of our clinical data or patients' personal data could result in significant liability under state (e.g., state breach notification laws), federal (e.g., HIPAA, as amended by HITECH), and international (e.g., the GDPR) law and may cause a material adverse impact to our reputation, affect our ability to conduct new studies and potentially disrupt our business.

In addition, the computer systems of various third parties on which we rely, including our CROs and other contractors, consultants and law and accounting firms, may sustain damage from computer viruses, unauthorized access, data breaches, phishing attacks, cybercriminals, natural disasters (including hurricanes

and earthquakes), terrorism, war and telecommunication and electrical failures. We rely on our third-party providers to implement effective security measures and identify and correct for any such failures, deficiencies or breaches. If we or our third-party providers fail to maintain or protect our information technology systems and data integrity effectively or fail to anticipate, plan for or manage significant disruptions to our information technology systems, we or our third-party providers could have difficulty preventing, detecting and controlling such cyber-attacks and any such attacks could result in losses described above as well as disputes with physicians, patients and our partners, regulatory sanctions or penalties, increases in operating expenses, expenses or lost revenues or other adverse consequences, any of which could have a material adverse effect on our business, results of operations, financial condition, prospects and cash flows. Any failure by such third parties to prevent or mitigate security breaches or improper access to or disclosure of such information could have similarly adverse consequences for us.

The GDPR, United States state laws and other international laws to which we may be subject require businesses to notify regulators and data subjects in the event of a data breach. If we are unable to prevent or mitigate the impact of such security or data privacy breaches, we could be exposed to litigation and governmental investigations, which could lead to fines, damages, reputational damage and a potential disruption to our business.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.

Our quarterly and annual operating results may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. From time to time, we may enter into license or collaboration agreements with other companies that include development funding and significant upfront and milestone payments and/or royalties, which may become an important source of our revenue. Accordingly, our revenue may depend on development funding and the achievement of development and clinical milestones under current and any potential future license and collaboration agreements and, if approved, sales of our product candidates. These upfront and milestone payments may vary significantly from period to period and any variance could cause a significant fluctuation in our operating results from one period to the next.

Further, our operating results may fluctuate due to a variety of other factors, many of which are outside of our control and may be difficult to predict, including the following:

- the timing and cost of, and level of investment in, research and development activities relating to our current programs, additional follow-on indications for ATL001, and any future product candidates, which will change from time to time;
- the timing and outcomes of clinical trials for our current programs, additional follow-on indications for ATL001, and any future product candidates;
- the cost of manufacturing ATL001 and any of our future product candidates, which may vary depending on FDA guidelines and requirements, the quantity of production and the terms of our agreements with manufacturers;
- our ability to adequately support our future growth;
- potential unforeseen business disruptions that increase our costs or expenses;
- future accounting pronouncements or changes in our accounting policies; and
- the changing and volatile global economic environment.

The cumulative effect of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of the ADSs could decline substantially. The price of the ADSs could decline even when we have met any previously publicly stated revenue and/or earnings guidance we may provide.

Shareholder protections found in provisions under the United Kingdom City Code on Takeovers and Mergers, or the Takeover Code, will not apply if our place of central management and control remains outside of the United Kingdom (or the Channel Islands or the Isle of Man).

We believe that, as of the date of this prospectus, our place of central management and control is not in the United Kingdom (or the Channel Islands or the Isle of Man) for the purposes of the jurisdictional criteria of the Takeover Code. Accordingly, we believe that we are not currently subject to the Takeover Code and, as a result, our shareholders are not currently entitled to the benefit of certain takeover offer protections provided under the Takeover Code, including the rules regarding mandatory takeover bids.

In the event that this changes, or if the interpretation and application of the Takeover Code by the Panel on Takeovers and Mergers, or Takeover Panel, changes (including changes to the way in which the Takeover Panel assesses the application of the Takeover Code to English companies whose shares are listed outside of the United Kingdom), the Takeover Code may apply to us in the future.

The Takeover Code provides a framework within which takeovers of companies which are subject to the Takeover Code are regulated and conducted. The following is a brief summary of some of the most important rules of the Takeover Code:

- When any person acquires, whether by a series of transactions over a period of time or not, an interest in shares which (taken together with shares already held by that person and an interest in shares held or acquired by persons acting in concert with him or her) carry 30% or more of the voting rights of a company that is subject to the Takeover Code, that person is generally required to make a mandatory offer to all the holders of any class of equity share capital or other class of transferable securities carrying voting rights in that company to acquire the balance of their interests in the company.
- When any person who, together with persons acting in concert with him or her, is interested in shares representing not less than 30% but does not hold more than 50% of the voting rights of a company that is subject to the Takeover Code, and such person, or any person acting in concert with him or her, acquires an additional interest in shares which increases the percentage of shares carrying voting rights in which he or she is interested, then such person is generally required to make a mandatory offer to all the holders of any class of equity share capital or other class of transferable securities carrying voting rights of that company to acquire the balance of their interests in the company.
- A mandatory offer triggered in the circumstances described in the two paragraphs above must be in cash (or be accompanied by a cash alternative) and at not less than the highest price paid within the preceding 12 months to acquire any interest in shares in the company by the person required to make the offer or any person acting in concert with him or her.
- In relation to a voluntary offer (i.e., any offer which is not a mandatory offer), when interests in shares representing 10% or more of the shares of a class have been acquired for cash by an offeror (i.e., a bidder)

and any person acting in concert with it in the offer period and the previous 12 months, the offer must be in cash or include a cash alternative for all shareholders of that class at not less than the highest price paid for any interest in shares of that class by the offeror and by any person acting in concert with it in that period. Further, if an offeror acquires for cash any interest in shares during the offer period, a cash alternative must be made available at not less than the highest price paid for any interest in the shares of that class.

- If, after making an offer for a company, the offeror or any person acting in concert with them acquires an interest in shares in an offeree company (i.e., a target) at a price higher than the value of the offer, the offer must be increased to not less than the highest price paid for the interest in shares so acquired.
- An offeree company must appoint a competent independent advisor whose advice on the financial terms of the offer must be made known to all the shareholders, together with the opinion of the board of directors of the offeree company.
- Special or favorable deals for selected shareholders are not permitted, except in certain circumstances where independent shareholder approval is given and the arrangements are regarded as fair and reasonable in the opinion of the financial advisor to the offeree.
- All shareholders must be given the same information.
- Each document published in connection with an offer by or on behalf of the offeror or offeree must state that the directors of the offeror or the offeree, as the case may be, accept responsibility for the information contained therein.
- Profit forecasts, quantified financial benefits statements and asset valuations must be made to specified standards and must be reported on by professional advisors.
- Misleading, inaccurate or unsubstantiated statements made in documents or to the media must be publicly corrected immediately.
- Actions during the course of an offer by the offeree company, which might frustrate the offer are generally prohibited unless shareholders approve these plans. Frustrating actions would include, for example, lengthening the notice period for directors under their service contract or agreeing to sell off material parts of the target group.
- Stringent requirements are laid down for the disclosure of dealings in relevant securities during an offer, including the prompt disclosure of positions and dealing in relevant securities by the parties to an offer and any person who is interested (directly or indirectly) in 1% or more of any class of relevant securities.
- Employees of both the offeror and the offeree company and the trustees of the offeree company's pension scheme must be informed about an offer. In addition, the offeree company's employee representatives and pension scheme trustees have the right to have a separate opinion on the effects of the offer on employment appended to the offeree board of directors' circular or published on a website.

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

We are incorporated under the laws of England and Wales. The rights of holders of our ordinary shares and Class A ordinary and, therefore, certain of the rights of holders of ADSs, are governed by the laws of England and Wales, including the provisions of the Companies Act 2006, and by our Articles. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. See "Description of share capital and articles of association—Differences in corporate law" in this prospectus for a description of the principal

differences between the provisions of the Companies Act 2006 applicable to us and, for example, the Delaware General Corporation Law relating to shareholders' rights and protections.

The principal differences include the following:

- Under English law, subject to certain exceptions and disapplications, each shareholder generally has preemptive rights to subscribe on a proportionate basis to any issuance of ordinary shares or Class A ordinary shares or rights to subscribe for, or to convert securities into, ordinary shares or Class A ordinary shares for cash. Under U.S. law, shareholders generally do not have preemptive rights unless specifically granted in the certificate of incorporation or otherwise.
- Under English law and our Articles, certain matters require the approval of 75% of shareholders representing 75% of the ordinary shares voting (in person or by proxy), including amendments to the Articles. This may make it more difficult for us to complete corporate transactions deemed advisable by our board of directors. Under U.S. law, generally only majority shareholder approval is required to amend the certificate of incorporation or to approve other significant transactions.
- In the United Kingdom, takeovers may be structured as takeover offers or as schemes of arrangement. Under English law, a bidder seeking to acquire us by means of a takeover offer would need to make an offer for all of our outstanding ordinary shares/ADSs. If acceptances are not received for 90% or more of the ordinary shares/ADSs under the offer, under English law, the bidder cannot complete a "squeeze out" to obtain 100% control of us. Accordingly, acceptances of 90% of our outstanding ordinary shares (including those represented by ADSs) will likely be a condition in any takeover offer to acquire us, not 50% as is more common in tender offers for corporations organized under Delaware law. By contrast, a scheme of arrangement, the successful completion of which would result in a bidder obtaining 100% control of us, requires the approval of a majority of shareholders voting at the meeting and representing 75% of the ordinary shares (including those represented by ADSs) voting at the meeting for approval.
- Under English law and our Articles, shareholders and other persons whom we know or have reasonable cause to believe are, or have been, interested in our shares may be required to disclose information regarding their interests in our shares upon our request, and the failure to provide the required information could result in the loss or restriction of rights attaching to the shares, including prohibitions on certain transfers of the shares, withholding of dividends and loss of voting rights. Comparable provisions generally do not exist under U.S. law.

Our Articles will provide that the courts of England and Wales will be the exclusive forum for the resolution of all shareholder complaints other than complaints asserting a cause of action arising under the Securities Act or the Exchange Act, and that the United States District Court for the Southern District of New York will be the exclusive forum for the resolution of any shareholder complaint asserting a cause of action arising under the Securities Act or the Exchange Act.

Our Articles will provide that, unless we consent by ordinary resolution to the selection of an alternative forum, the courts of England and Wales shall, to the fullest extent permitted by law, be the exclusive forum for: (i) any derivative action or proceeding brought on our behalf; (ii) any action or proceeding asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us; (iii) any action or proceeding asserting a claim arising out of any provision of the Companies Act 2006 or our Articles (as may be amended from time to time); or (iv) any action or proceeding asserting a claim or otherwise related to our affairs, or the England and Wales Forum Provision. The England and Wales Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act. Our Articles will further provide that unless we consent by ordinary resolution to the selection of an alternative forum, the United States District Court for the

Southern District of New York shall be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act or the Exchange Act, or the U.S. Federal Forum Provision. In addition, our Articles will provide that any person or entity purchasing or otherwise acquiring any interest in our shares is deemed to have notice of and consented to the England and Wales Forum Provision and the U.S. Federal Forum Provision; provided, however, that our shareholders cannot and will not be deemed to have waived our compliance with the U.S. federal securities laws and the rules and regulations thereunder.

The England and Wales Forum Provision and the U.S. Federal Forum Provision in our Articles may impose additional litigation costs on our shareholders in pursuing any such claims. Additionally, the forum selection clauses in our Articles may limit the ability of our shareholders to bring a claim in a judicial forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage the filing of lawsuits against us and our directors, officers and employees, even though an action, if successful, might benefit our shareholders. In addition, while the Delaware Supreme Court ruled in March 2020 that federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court are "facially valid" under Delaware law, there is uncertainty as to whether other courts, including the courts of England and Wales and other courts within the U.S., will enforce our U.S. Federal Forum Provision. If the U.S. Federal Forum Provision is found to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our results of operations and financial condition. The U.S. Federal Forum Provision may also impose additional litigation costs on our shareholders who assert that the provision is not enforceable or invalid. The courts of England and Wales and the United States District Court for the Southern District of New York may also reach different judgments or results than would other courts, including courts where a shareholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our shareholders.

If we were classified as a passive foreign investment company, there could be material adverse U.S. federal income tax consequences to U.S. Holders.

Under the Internal Revenue Code of 1986, as amended, or the Code, we will be a passive foreign investment company, or PFIC, for any taxable year in which (i) 75% or more of our gross income consists of passive income, or the income test, or (ii) 50% or more of the average quarterly value of our assets consists of assets that produce, or are held for the production of, passive income, or the asset test. For purposes of these tests, passive income includes dividends, interest, gains from the sale or exchange of investment property and certain rents and royalties. 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 holding and receiving directly its proportionate share of assets and income of such corporation. If we are a PFIC for any taxable year during which a U.S. Holder (as defined below under "Material income tax considerations—Material U.S. federal income tax considerations for U.S. holders") holds our ordinary shares or ADSs, the U.S. Holder may be subject to material 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.

We believe that we were classified as a PFIC for our taxable year ended December 31, 2020. Based on the current and expected composition of our income and assets and the value of our assets, we expect to be a PFIC for the current taxable year ending December 31, 2021. However, no assurances regarding our PFIC status can be provided for any past, current or future taxable years. The determination of whether we are a PFIC is a fact-intensive determination made on an annual basis applying principles and methodologies that in some circumstances are unclear and subject to varying interpretation. Subject to certain exceptions, for purposes of the asset test, if we are treated as a non-publicly traded "controlled foreign corporation," or a CFC (as discussed

below), for the year being tested for purposes of the PFIC rules, the value of our assets will be measured by the adjusted tax basis of our assets. If we are a publicly traded CFC or not a CFC for such year, the value of our assets generally will be determined by reference to the market price of our ordinary shares or ADSs from time to time, which may fluctuate considerably. The income test depends on the nature and composition of our income. The composition of our income and assets is also affected by how fast we spend the cash we raise in any offering, including this offering.

For further discussion of the PFIC rules and adverse U.S. federal income tax consequences in the event we are classified as a PFIC, see the section titled “Material income tax considerations—Material U.S. federal income considerations for U.S. holders” in this prospectus. Each U.S. Holder should consult its own tax advisors with respect to the potential adverse U.S. tax consequences to it if we are or were to become a PFIC.

We may be unable to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments or benefit from favorable United Kingdom tax legislation.

As a United Kingdom incorporated and tax resident entity, we are subject to United Kingdom corporate taxation on tax-adjusted trading profits. Due to the nature of our business, we have generated losses since inception and therefore have not paid any United Kingdom corporation tax. As of December 31, 2020, we had cumulative United Kingdom carryforward tax losses of $37.1 million. Subject to any relevant criteria and restrictions (including those that limit the percentage of profits that can be reduced by carried forward losses and those that can restrict the use of carried forward losses where there is a change of ownership of more than half of our ordinary shares and a major change in the nature, conduct or scale of the trade), we expect these to be eligible for carry forward and utilization against future operating profits.

As a company that carries out extensive research and development activities, we seek to benefit from the United Kingdom research and development tax relief programs, being the Small and Medium-sized Enterprises R&D tax relief program, or SME Program, and, to the extent that our projects are grant funded or relate to work subcontracted to us by third parties, the Research and Development Expenditure Credit program, or RDEC Program. Under the SME Program, we may be able to surrender some of our trading losses that arise from our qualifying research and development activities for a cash rebate of up to 33.35% of such qualifying research and development expenditures. The majority of our research, clinical trials management and manufacturing development activities are eligible for inclusion within these tax credit cash rebate claims. We may not be able to continue to claim payable research and development tax credits in the future if we cease to qualify as a SME, based on size criteria concerning employee headcount, turnover and gross assets.

We may benefit in the future from the United Kingdom’s “patent box” regime, which allows certain profits attributable to revenue from patented products (and other qualifying income) to be taxed at an effective rate of 10% by giving an additional tax deduction. When taken in combination with the enhanced relief available on our research and development expenditures, we expect a long-term rate of corporation tax lower than the statutory to apply to us. If, however, there are unexpected adverse changes to the United Kingdom research and development tax credit regime or the “patent box” regime, or for any reason we are unable to qualify for such advantageous tax legislation, or we are unable to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments then our business, results of operations and financial condition may be adversely affected. This may impact our ongoing requirement for investment and the timeframes within which additional investment is required.

Changes and uncertainties in the tax system in the countries in which we have operations could materially adversely affect our financial condition and results of operations, and reduce net returns to our shareholders.

We conduct business globally and file income tax returns in the United Kingdom and the U.S. The tax treatment of the company or any of the group companies could be materially adversely affected by several factors, including: changing tax laws, regulations and treaties, or the interpretation thereof; tax policy initiatives and reforms under consideration (such as those related to the Organisation for Economic Co-operation and Development's, or OCED, Base Erosion and Profit Shifting, or BEPS, Project, the European Commission's state aid investigations and other initiatives); the practices of tax authorities in jurisdictions in which we operate (the United Kingdom and the U.S.); and the resolution of issues arising from tax audits or examinations and any related interest or penalties. Such changes may include (but are not limited to) the taxation of operating income, investment income, dividends received or (in the specific context of withholding tax) dividends paid.

We are unable to predict what tax reform 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 in jurisdictions in which we operate, could affect our financial position, future results of operations, cash flows in a particular period and overall or effective tax rates in the future in countries where we have operations, reduce post-tax returns to our shareholders and increase the complexity, burden and cost of tax compliance.

Tax authorities may disagree with our positions and conclusions regarding certain tax positions, or may apply existing rules in an unforeseen manner, resulting in unanticipated costs, taxes or non-realization of expected benefits.

A tax authority may disagree with tax positions that we have taken, which could result in increased tax liabilities. For example, Her Majesty's Revenue & Customs, or HMRC, the Internal Revenue Service, or IRS, or another tax authority could challenge our allocation of income among various jurisdictions and the amounts paid between our affiliated companies pursuant to our intercompany arrangements and transfer pricing policies. Similarly, a tax authority could assert that we are subject to tax in a jurisdiction where we believe we have not established a taxable connection, often referred to as a "permanent establishment" under international tax treaties, and such an assertion, if successful, could increase our expected tax liability in one or more jurisdictions.

A tax authority may take the position that material income tax liabilities, interest and penalties are payable by us, for example where there has been a technical violation of contradictory laws and regulations that are relatively new and have not been subject to extensive review or interpretation, in which case we expect that we might contest such assessment. Contesting such an assessment may be lengthy and costly and if we were unsuccessful in disputing the assessment, the implications could increase our anticipated effective tax rate, where applicable, or result in other liabilities.

If we are a "controlled foreign corporation," or CFC, there could be adverse U.S. federal income tax consequences to certain U.S. Holders.

Each "Ten Percent Shareholder" (as defined below) in a non-U.S. corporation that is classified as a CFC for U.S. federal income tax purposes generally is required to include in income for U.S. federal tax purposes such Ten Percent Shareholder's pro rata share of the CFC's "Subpart F income," "global intangible low-taxed income" and investment of earnings in U.S. property, even if the CFC has made no distributions to its shareholders. A non-U.S. corporation generally will be classified as a CFC for U.S. federal income tax purposes if Ten Percent Shareholders own, directly or indirectly, more than 50% of either the total combined voting power of all classes

of stock of such corporation entitled to vote or of the total value of the stock of such corporation. A "Ten Percent Shareholder" is a United States person (as defined by the Code) who owns or is considered to own (directly, indirectly or constructively) 10% or more of the value of all classes of stock or total combined voting power of all classes of stock entitled to vote of such corporation. In addition, if a non-U.S. corporation owns at least one U.S. subsidiary, even if such non-U.S. corporation is not a CFC, under current law, any current non-U.S. subsidiaries and any future newly formed or acquired non-U.S. subsidiaries of the non-U.S. corporation will be treated as CFCs. Subpart F income generally includes dividends, interest, rents, royalties, gains from the sale of securities and income from certain transactions with related parties. In addition, a Ten Percent Shareholder that realizes gain from the sale or exchange of shares in a CFC may be required to classify a portion of such gain as dividend income rather than capital gain.

We believe that we were classified as a CFC for our taxable year ended December 31, 2020. We may be a CFC in our current taxable year in which this offering occurs. The determination of CFC status is complex and includes attribution rules, the application of which is not entirely certain. An individual that is a Ten Percent Shareholder with respect to a CFC generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a Ten Percent Shareholder that is a U.S. corporation. Failure to comply with CFC reporting obligations may subject a United States shareholder to significant monetary penalties. We cannot provide any assurances that we will furnish to any Ten Percent Shareholder information that may be necessary to comply with the reporting and tax paying obligations applicable under the CFC rules of the Code. U.S. Holders should consult their own tax advisors with respect to the potential adverse U.S. tax consequences of becoming a Ten Percent Shareholder in a CFC.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon the closing of this offering, we will become subject to the periodic reporting requirements of the Exchange Act. We are continuing to refine our disclosure controls and procedures to provide reasonable assurance that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

If we fail to establish and maintain proper and effective internal control over financial reporting, our operating results and our ability to operate our business could be harmed.

Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. In connection with this offering, we intend to begin the process of documenting, reviewing, and improving our internal controls and procedures for compliance with Section 404 of the Sarbanes-Oxley Act, which will require annual management assessment of the effectiveness of our internal control over financial reporting. We have begun recruiting additional finance and accounting personnel with certain skill sets that we will need as a public company.

Implementing any appropriate changes to our internal controls may distract our officers and employees, entail substantial costs to modify our existing processes, and take significant time to complete. These changes may not, however, be effective in maintaining the adequacy of our internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and harm our business. In addition, investors' perceptions that our internal controls are inadequate or that we are unable to produce accurate financial statements on a timely basis may harm the price of the ADSs and make it more difficult for us to effectively market and sell our service to new and existing customers.

After the completion of this offering, we may be at an increased risk of securities class action litigation.

Historically, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and pharmaceutical companies have experienced significant stock price volatility in recent years. If we were to be sued, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Our business and operations may be negatively impacted by the United Kingdom's withdrawal from the EU.

During the Brexit transition period, the United Kingdom continued to be subject to the laws and obligations applicable to all EU members, including laws related to trade and data privacy and the EU's pharmaceutical laws. However, many of the regulations that now apply in the United Kingdom following the transition period (including financial laws and regulations, tax, intellectual property rights, data protection laws, supply chain logistics, environmental, health and safety laws and regulations, medicine approval and regulations, immigration laws and employment laws), will likely be amended in the future as the UK determines its new approach, which may result in significant divergence from EU regulations. This lack of clarity on future United Kingdom laws and regulations and their interaction with the EU laws and regulations may negatively impact foreign direct investment in the United Kingdom, increase costs, depress economic activity and restrict access to capital. Brexit may affect our results of operations in a number of ways, including increasing currency exchange risk, generating instability in the global financial markets or negatively impacting the economies of the United Kingdom and Europe. In addition, as we are headquartered in the United Kingdom, it is possible that Brexit may impact some or all of our current operations. For example, now the transition period has ended, Brexit will impact our ability to freely move employees from our headquarters in the United Kingdom to other locations in Europe and it may impact the ability of European healthcare practitioners to move freely to the United Kingdom in order to complete part of their training or work on our clinical trials there. If other EU member states pursue withdrawal from the EU, barrier-free access between the United Kingdom and other EU member states or among the EEA overall could be diminished or eliminated.

The long-term effects of Brexit will depend in part on how the EU-UK Trade and Cooperation Agreement, and any future agreements signed by the UK and the EU, play out in practice. Such a withdrawal from the EU is unprecedented, and it is unclear how the restrictions on the United Kingdom's access to the European single market for goods, capital, services and labor within the EU and the wider commercial, legal and regulatory environment, will impact our current and future operations (including business activities conducted by third parties and contract manufacturers on our behalf) and clinical activities in the United Kingdom. In addition to the foregoing, our United Kingdom operations are currently organized so as to support and align with our current and future operations and clinical activities in the EU and EEA, but these operations and clinical activities could be disrupted by Brexit, which may require substantial changes to be made to our current United Kingdom or EU / EEA operations (for example, in respect of the importation and exportation of medicinal products and supply chain generally).

We may also face new regulatory costs and challenges that could have an adverse effect on our operations as a result of Brexit. The United Kingdom will lose the benefits of global trade agreements negotiated by the EU on behalf of its member states, which may result in increased trade barriers that could make our doing business in the EU and the EEA more difficult. Since the regulatory framework in the United Kingdom covering quality, safety and efficacy of medicinal products, clinical trials, marketing authorization, commercial sales and distribution of medicinal products is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime with respect to the approval of our current or future product candidates in the United Kingdom. For instance, the United Kingdom will now no longer be covered by the centralized procedure for obtaining EU-wide marketing and manufacturing authorizations from the EMA for medicinal products and a separate process for authorization of drug products will be required in the United Kingdom, resulting in an authorization covering the United Kingdom only. For a period of two years from January 1, 2021, the MHRA may rely on a decision taken by the European Commission on the approval of a new marketing authorization in the centralized procedure, in order to more quickly grant a UK marketing authorization. A separate application will, however, still be required. It remains to be seen how Brexit will impact regulatory requirements for product candidates and therapies in the United Kingdom in the long term. Any delay in obtaining, or an inability to obtain, any regulatory approvals, as a result of Brexit or otherwise, would delay or prevent us from commercializing our current or future product candidates in the United Kingdom and/or the EU and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or EU for our current or future product candidates, or incur significant additional expenses to operate our business, which could significantly and materially harm our business. Even prior to any change to the United Kingdom's relationship with the EU, the announcement of Brexit had created economic uncertainty surrounding the terms of Brexit and its consequences could adversely impact customer confidence resulting in customers reducing their spending budgets on our current or future product candidates, if approved, which could adversely affect our business, financial condition, results of operations and could adversely affect the market price of the ADSs.

We expect that, now that the transition period has expired, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which EU laws to replicate or replace, including those related to data privacy and the regulation of medicinal products, as described above. Any of these effects of Brexit, and others we cannot anticipate, could negatively impact our business and results of operations.

Legal, political and economic uncertainty surrounding the United Kingdom's withdrawal from the European Union may be a source of instability in international markets, create significant currency fluctuations and risks of additional taxation, adversely affect our operations in the United Kingdom and pose additional risks to our business, revenue, financial condition, and results of operations.

Since a significant proportion of the regulatory framework in the United Kingdom applicable to our business and our product candidates is derived from European Union directives and regulations, Brexit, following the transition period, could materially impact our business. Any further changes in international trade, tariff and import/export regulations as a result of Brexit or otherwise may impose unexpected duty costs or other non-tariff barriers on us. These developments, or the perception that any of them could occur, may significantly reduce global trade and, in particular, trade between the impacted nations and the United Kingdom. It is also possible that Brexit may negatively affect our ability to attract and retain employees, particularly those from the European Union.

The uncertainty concerning the United Kingdom's legal, political and economic relationship with the European Union following Brexit may be a source of instability in the international markets, create significant currency

fluctuations, and/or otherwise adversely affect trading agreements or similar cross-border co-operation arrangements (whether economic, tax, fiscal, legal, regulatory or otherwise).

It is possible that following the transition period the application of current exemptions from charges to United Kingdom stamp duty and stamp duty reserve tax, or SDRT, to issues or transfers of our ordinary shares to depositary receipt systems or clearance services could be adversely affected. Although under current case law and Her Majesty's Revenue & Customs published practice it is not expected that any United Kingdom stamp duty or SDRT would arise in respect of any issue or transfer of our ordinary shares into a clearance service or depositary receipt system (including any issues or transfers effected in connection with this offering) where it forms an integral part of capital raising, it is possible that following the transition period, existing United Kingdom legislation (which is not presently enforceable as a result of EU case law and which the Government indicated in April 2017 would not be applied following Brexit) could be applied, for example in the event of a change in Government policy, such that United Kingdom stamp duty and/or SDRT would apply in respect of any issue or transfer of our ordinary shares to depositary receipt systems or clearance services occurring thereafter including in respect of an issue or transfer which is integral to the raising of capital and possibly including any issues or transfers effected in connection with this offering. In this event, we would be expected to bear any such United Kingdom stamp duty or SDRT (which, based on the existing legislation would be charged, in effect, at the rate of 1.5% of the value of the ordinary shares so issued or transferred). Any such charge would therefore represent an additional cost of our seeking to raise capital through issuances of our ordinary shares pursuant to this offering and any further issuances of our ordinary shares.

Special note regarding forward-looking statements

This prospectus contains express or implied forward-looking statements that involve substantial risks and uncertainties. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by the words “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “continue,” “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. The forward-looking statements and opinions contained in this prospectus are based upon information available to our management as of the date of this prospectus and, while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- the success, cost and timing of our research activities and clinical trials;
- the timing, scope or likelihood of regulatory filings and approvals, including timing of Investigational New Drug Application and Biologics License Application filings for our current and future programs and any future product candidates, and final U.S. Food and Drug Administration, European Medicines Agency, United Kingdom Medicines and Healthcare products Regulatory Agency or other foreign regulatory authority approval of our current programs or follow-on indications and any future product candidates;
- our ability to develop and advance additional follow-on indications as well as any future product candidates into, and successfully complete, clinical studies;
- our ability to continue to innovate, improve and develop our technology platform, including continuing to develop and improve our PELEUS bioinformatic platform and VELOS manufacturing process and to evaluate new approaches to our manufacturing process;
- our ability to expand our Material Acquisition Platform network to increase our network of clinical sites;
- our ability to establish future collaborations or strategic relationships or obtain additional funding;
- the rate and degree of market acceptance and clinical utility of our current and future programs and any future product candidates we may develop;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering product candidates we may develop, including the validity of intellectual property rights held by third parties, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- regulatory developments in the United States, the United Kingdom, the European Union and other countries and regions;
- competitive companies, technologies and our industry and the success of competing therapies that are or may become available;
- our ability to attract and retain key scientific or management personnel;
- our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates, if approved;

- the accuracy of our estimates of our future revenue, expenses, capital requirements and needs for additional financing;
- our estimates regarding the market opportunities for our current and future programs and any future product candidates;
- whether we are classified as a passive foreign investment company for future periods;
- our ability to overcome the challenges posed by the COVID-19 pandemic to the conduct of our business; and
- our expectations regarding use of the proceeds from this offering.

You should refer to the section titled “Risk factors” for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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

Market and industry data

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

Use of proceeds

We estimate that the net proceeds to us from this offering will be approximately $160.2 million, based on the initial public offering price of $18.00 per ADS, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional ADSs in full, we estimate that the net proceeds to us from this offering will be approximately $184.7 million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term deposits, as follows:

- approximately $79.0 million to advance our cNeT programs for the treatment of advanced NSCLC and metastatic or recurrent melanoma through the completion of our ongoing Phase I/IIa clinical trials;
- approximately $36.0 million to advance our cNeT programs for the treatment of HNSCC and RCC through the completion of IND-enabling studies and for research and development activities related to additional follow-on indications;
- approximately $32.0 million to fund the continued innovation and development of our PELEUS bioinformatic platform and $20.0 million to continue to enhance our VELOS manufacturing process;
- approximately $67.0 million to fund the continued automation and expansion of our manufacturing capabilities and capacity; and
- the remainder to fund ongoing business development activities, general and administrative expenses, working capital and other general corporate purposes.

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. We may also use a portion of the net proceeds to in-license, acquire or invest in additional businesses, technologies, products or assets. We cannot predict with certainty all of the particular uses for the net proceeds to be received upon the consummation of this offering or the amounts that we will actually spend on the uses set forth above. Predicting the cost necessary to develop product candidates and commercialize approved products can be difficult and the amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, our plans to expand our in-house product manufacturing capabilities, the status of and results from clinical trials, any collaborations that we may enter into with third parties for product candidates and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Based on our planned use of the net proceeds from this offering and our existing cash and cash equivalents, we estimate that such funds will be sufficient to fund our operations and capital expenditure requirements for at least the next 24 months. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources.

Pending our use of proceeds from this offering, we plan to invest these net proceeds in a variety of capital preservation instruments, including short-term, interest bearing obligations and investment-grade instruments.

Dividend policy

We have never declared or paid any cash dividend, and we do not anticipate declaring or paying any cash dividends in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business. See the section titled “Risk factors—Risks related ownership of the ADSs—We do not intend to pay dividends on the ADSs, so any returns will be limited to the value of our ordinary shares.”

Under English law, among other things, we may only pay dividends if we have sufficient distributable reserves (on a non-consolidated basis), which are our accumulated realized profits that have not been previously distributed or capitalized less our accumulated realized losses, so far as such losses have not been previously written off in a reduction or reorganization of capital.

Corporate reorganization

Achilles TX Limited was a private limited company incorporated in England and Wales in November 2020 with nominal assets and liabilities for the purpose of consummating the corporate reorganization described herein. Following the incorporation of Achilles TX Limited, Achilles TX Limited incorporated Achilles Therapeutics Holdings Limited as a wholly-owned subsidiary. Pursuant to the terms of a corporate reorganization effected in December 2020, all shareholders of Achilles Therapeutics Limited exchanged each of the shares held by them for equivalent shares (both in terms of number and class but with a nominal value of £1.20 per share) in Achilles TX Limited and, as a result, Achilles Therapeutics Limited became a wholly owned subsidiary of Achilles TX Limited and the shareholders of Achilles Therapeutics Limited became the shareholders of Achilles TX Limited. At the time of the share exchange, Achilles Therapeutics Limited had one wholly-owned subsidiary, Achilles Therapeutics US, Inc. In January 2021, Achilles Therapeutics Limited changed its name to Achilles Therapeutics UK Limited. In February 2021, Achilles TX Limited was re-registered as a public limited company and changed its name to Achilles Therapeutics plc in preparation for this offering. Following this, Achilles Therapeutics plc sold the entire issued share capital of Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited for two newly issued ordinary shares with a nominal value of £1.00 per share in the capital of Achilles Therapeutics Holdings Limited. As a result, Achilles Therapeutics UK Limited became a wholly owned subsidiary of Achilles Therapeutics Holdings Limited and Achilles Therapeutics US, Inc. became an indirect wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. Following this, Achilles Therapeutics UK Limited distributed the entire issued share capital of Achilles Therapeutics US, Inc. to Achilles Therapeutics Holdings Limited and, as a result, Achilles Therapeutics US, Inc. became a wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. As part of the corporate reorganization, we will reorganize our share capital to two classes of ordinary shares: ordinary shares and Class A ordinary shares, each with a nominal value of £0.001.

Investors in this offering will only acquire, and this prospectus only describes the offering of, ADSs representing the ordinary shares of Achilles Therapeutics plc. Class A ordinary shares will not be offered to investors as part of this offering. We refer to the reorganization, pursuant to which Achilles TX Limited acquired all of the shares in Achilles Therapeutics Limited in exchange for equivalent shares (both in terms of number and class but with a nominal value per share of £1.20) in Achilles TX Limited, the subsequent re-registration of Achilles TX Limited as a public limited company and reorganization of our share capital into two classes of ordinary shares: ordinary shares and Class A ordinary shares, each with a nominal value of £0.001 and the related changes to our group structure (each of which is more particularly described below) as our “corporate reorganization.”

The corporate reorganization will take place in several steps, all of which will be completed prior to the completion of this offering.

Exchange of Achilles Therapeutics Limited shares for Achilles TX Limited shares

Prior to the share exchange described in this paragraph, the share capital of Achilles Therapeutics Limited was divided into: B ordinary shares of nominal value £0.00001 each; D ordinary shares of nominal value £0.00001 each; E ordinary shares of nominal value £0.00001 each; F ordinary shares of nominal value £0.00001 each; G ordinary shares of nominal value £0.00001 each; H ordinary shares of nominal value £0.00001 each; I ordinary shares of nominal value £0.00001 each; J ordinary shares of nominal value £0.00001 each; L ordinary shares of nominal value £0.00001 each; M ordinary shares of nominal value £0.00001 each; N ordinary shares of nominal value £0.00001 each; Series A preferred shares of nominal value £0.00001 each; Series B preferred shares of nominal value £0.00001 each; Series C preferred shares of nominal value £0.00001 each; and deferred shares of nominal value £0.00001 each. In December 2020, the shareholders of Achilles Therapeutics Limited exchanged all of the shares held by them in Achilles Therapeutics Limited for equivalent shares (both in terms of number and class but with a nominal value of £1.20 per share) in Achilles TX Limited. As a result, Achilles TX Limited became the sole shareholder of Achilles Therapeutics Limited and the existing shareholders in Achilles

Therapeutics Limited became shareholders in Achilles TX Limited. As part of the share exchange described in this paragraph, Achilles TX Limited applied to HM Revenue and Customs for U.K. stamp duty and SDRT relief in connection with the share exchange under section 77 of the Finance Act 1986. This tax relief was received in January 2021.

In accordance with the terms of section 692(1ZA) of the Companies Act 2006 and its articles of association, and immediately prior to the completion of the share exchange described above, Achilles Therapeutics Limited repurchased all of the deferred shares of nominal value £0.00001 each in issue for the aggregate amount of £0.01 for all of the deferred shares held by each holder of our deferred shares. Once repurchased, the deferred shares were immediately cancelled such that no deferred shares were in issue at the time of the share exchange.

Reduction of capital of Achilles TX Limited and Achilles Therapeutics Limited

Following the share exchange described in the immediately preceding section and pursuant to Part 17 of the Companies Act 2006, in December 2020, Achilles TX Limited reduced the nominal value of each of its shares from £1.20 to £0.001 pursuant to a capital reduction supported by a directors' solvency statement. The capital reduction was carried out in order to satisfy the net asset test requirement in section 92 of the Companies Act 2006 for the re-registration of Achilles TX Limited as a public limited company and to create distributable reserves in Achilles TX Limited to support future distributions. In February 2021, in order to create sufficient distributable reserves to support the transfer of Achilles Therapeutics US, Inc. to Achilles Therapeutics Holdings Limited (as more particularly described below), Achilles Therapeutics Limited undertook a capital reduction supported by a directors' solvency statement to cancel the full amount standing to the credit of its share premium reserve.

Achilles Therapeutics Limited change of name

In January 2021, following completion of the share exchange described above and pursuant to Part 5 of the U.K. Companies Act 2006, Achilles Therapeutics Limited was renamed Achilles Therapeutics UK Limited. The purpose of this step was to enable Achilles TX Limited to change its name to Achilles Therapeutics plc in preparation for this offering and as part of the re-registration of Achilles TX Limited to a public limited company as more particularly described below.

Re-registration of Achilles TX Limited as Achilles Therapeutics plc

In February 2021, following the share exchange described above and completion of the capital reduction undertaken by Achilles TX Limited, Achilles TX Limited was re-registered as a public limited company pursuant to section 92 of the U.K. Companies Act 2006 and was renamed Achilles Therapeutics plc. As part of this process, Achilles TX Limited adopted new Articles of Association appropriate for a public limited company. Immediately prior to, and conditional upon, the completion of this offering, Achilles Therapeutics plc will adopt new Articles of Association appropriate for a public limited company listed on Nasdaq. Further details of these Articles of Association are set out in the section titled "Description of share capital and articles of association."

Sale of Achilles Therapeutics UK Limited shares to Achilles Therapeutics Holdings Limited

In February 2021, following the completion of the share exchange and receipt of the U.K. stamp duty relief described above, Achilles Therapeutics plc sold the entire issued share capital of Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited for two newly issued ordinary shares with a nominal value of £1.00 each in the capital of Achilles Therapeutics Holdings Limited and, as a result, Achilles Therapeutics

Limited became a wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. As a result of the transfer of Achilles Therapeutics UK Limited from Achilles Therapeutics plc to Achilles Therapeutics Holdings Limited, Achilles Therapeutics US, Inc. became an indirect, wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. As part of the share transfer described in this paragraph, Achilles Therapeutics Holdings Limited will apply to HM Revenue and Customs for U.K. stamp duty and SDRT relief in connection with the share transfer under Section 42 of the Finance Act 1930.

Re-designation and consolidation of shares in Achilles Therapeutics UK Limited

Following completion of the transfer of Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited as described in the immediately preceding paragraph, Achilles Therapeutics UK Limited re-designated its share capital into a single class of ordinary shares with a nominal value of £0.00001 in order to simplify its capital structure.

Distribution of Achilles Therapeutics US, Inc. by Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited

In February 2021, following completion of the Achilles Therapeutics UK Limited capital reduction and Achilles Therapeutics UK Limited becoming a wholly-owned subsidiary of Achilles Therapeutics Holdings Limited, Achilles Therapeutics UK Limited distributed the entire issued share capital of Achilles Therapeutics US, Inc. to its sole shareholder, Achilles Therapeutics Holdings Limited. Following the receipt of the distribution, Achilles Therapeutics Holdings Limited became the sole shareholder of Achilles Therapeutics US, Inc.

Reduction of capital of Achilles Therapeutics Holdings Limited

In March 2021, and pursuant to Part 17 of the Companies Act 2006, Achilles Therapeutics Holdings Limited completed a capital reduction supported by a directors' solvency statement in order to create distributable reserves to support future distributions by cancelling the full amount standing to the credit of its share premium reserve.

Reorganization of shares in Achilles Therapeutics plc prior to the completion of this offering

Immediately prior to and conditional on the completion of this offering, and as the final step of the corporate reorganization, all of Achilles Therapeutics plc's outstanding B ordinary shares of nominal value £0.001 each; D ordinary shares of nominal value £0.001 each; E ordinary shares of nominal value £0.001 each; F ordinary shares of nominal value £0.001 each; G ordinary shares of nominal value £0.001 each; H ordinary shares of nominal value £0.001 each; I ordinary shares of nominal value £0.001 each; J ordinary shares of nominal value £0.001 each; L ordinary shares of nominal value £0.001 each; and M ordinary shares of nominal value £0.001 each; Series A preferred shares of nominal value £0.001 each; Series B preferred shares of nominal value £0.001 each; and Series C preferred shares of £0.001 each will be converted on a one-to-one basis into an aggregate of 119,370,314 ordinary shares of nominal value £0.001 each. Based on the initial public offering price of $18.00 per ADS, the N ordinary shares of nominal value £0.001 each will be converted on a one-for-0.7094 basis into an aggregate of 2,971,356 ordinary shares of nominal value £0.001 each. Following this, Achilles Therapeutics plc will undertake a one-for-0.2526 reverse split of all of Achilles Therapeutics plc's ordinary shares of nominal value £0.001 each and Class A ordinary shares of nominal value £0.001 each. The fractional entitlements resulting from the reverse split will be consolidated into 92,451,851 deferred shares with an aggregate nominal value of £92,452 and transferred to us for no consideration and subsequently cancelled.

These actions taken together are described in this registration statement as our “reverse share split” and will take effect immediately prior to and conditional on completion of this offering. Our reverse share split will not alter the proportionate shareholding of any of our existing shareholders.

Capitalization

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2020 on:

- an actual basis;
- a pro forma basis to give effect to our corporate reorganization; and
- on a pro forma as adjusted basis to give effect to the pro forma adjustments set forth above and to give further effect to the sale of 9,750,000 ADSs in this offering, based on the initial public offering price of $18.00 per ADS, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with our audited consolidated financial statements for years ended December 31, 2020 and the related notes to those statements appearing elsewhere in this prospectus and the information set forth under the sections titled “Selected consolidated financial data,” “Use of proceeds” and “Management’s discussion and analysis of financial condition and results of operations.”

	As of December 31, 2020		
(in thousands, except share and per share data)	**Actual**	**Pro forma**	**Pro forma as adjusted**
Cash and cash equivalents	$177,849	$ 177,849	$ 338,193
Shareholders’ equity:			
Ordinary shares, £0.001 par value; 18,529,204 shares authorized, issued and outstanding, actual; 123,383,877 shares authorized, issued and outstanding, pro forma; 40,621,751 shares authorized, issued and outstanding, pro forma as adjusted	$ 25	$ 159	$ 210
Class A ordinary shares, £0.001 par value; no shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma; no shares authorized, issued and outstanding, pro forma as adjusted	—	—	—
Deferred shares, £0.001 par value; 30,521 shares authorized, issued and outstanding, actual; 30,521 shares authorized, issued and outstanding, pro forma; 30,521 shares authorized, issued and outstanding, pro forma as adjusted	—	—	—
Convertible preferred shares, £0.001 par value; 104,854,673 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma; no shares authorized, issued and outstanding, pro forma as adjusted	134	—	—
Additional paid in capital	234,903	234,903	$ 395,067
Accumulated other comprehensive income	12,322	12,322	12,322
Accumulated deficit	(58,012)	(58,012)	(58,012)
Total capitalization	$189,372	$ 189,372	$ 349,587

The number of ordinary shares outstanding in the table above does not include:

- 240,584 ordinary shares issuable upon the exercise of options for ordinary shares outstanding as of December 31, 2020, with a weighted-average exercise price of $6.75 per share;
- 1,161,060 ordinary shares reserved for issuance under our 2020 Omnibus Plan as of December 31, 2020, which shares will no longer be reserved following this offering;
- 2,572,558 ordinary shares that will be made available for future issuance under the 2021 Plan, which will become effective in connection with this offering; and
- 467,738 ordinary shares that will be made available for future issuance under the ESPP, which will become effective in connection with this offering.

Dilution

If you invest in our ADSs in this offering, your interest will be immediately diluted to the extent of the difference between the initial public offering price per ADS in this offering and the pro forma as adjusted net tangible book value per ADS after this offering. Dilution results from the fact that the initial public offering price per ADS is substantially in excess of the net tangible book value per ADS. As of December 31, 2020, we had a historical net tangible book value of $189.4 million, or $43.14 per ordinary share (43.14 per ADS). Our net tangible book value per share represents total tangible assets, less total liabilities, divided by the number of ordinary shares outstanding on December 31, 2020.

Our pro forma net tangible book value as of December 31, 2020 was $189.4 million, or $6.13 per ordinary share ($6.13 per ADS). Pro forma net tangible book value gives effect to our corporate reorganization.

After giving further effect to the sale of 9,750,000 ADSs in this offering at the initial public offering price of $18.00 per ADS, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value at December 31, 2020 would have been $349.6 million, or $9.39 per ordinary share ($9.39 per ADS). This represents an immediate increase in pro forma as adjusted net tangible book value of $2.48 per ordinary share ($2.48 per ADS) to existing shareholders and immediate dilution of $8.61 per ordinary share ($8.61 per ADS) to new investors.

The following table illustrates this dilution on a per ADS basis, assuming all ordinary shares outstanding as of December 31, 2020 converted to ADSs at an ADS-to-ordinary share ratio of one-to-0.2526 :

Initial public offering price per ADS		$ 18.00
Historical net tangible book value per ADS as of December 31, 2020	$ 43.14	
Decrease in net tangible book value per ADS attributable to the pro forma adjustments described above	(37.01)	
Pro forma net tangible book value per ADS as of December 31, 2020	6.13	
Increase in pro forma as adjusted net tangible book value attributable to new investors purchasing ADSs in this offering	$ 2.48	
Pro forma as adjusted net tangible book value per ADS after this offering		$ 8.61
Dilution per share to new investors purchasing ADSs in this offering		$ 9.39

If the underwriters exercise their option to purchase additional ADSs in full, the pro forma as adjusted net tangible book value per ADS after the offering would be $374.1 million, the increase in net tangible book value per ADS to existing shareholders would be $0.28 and the immediate dilution in net tangible book value per ADS to new investors in this offering would be $0.28.

The following table summarizes, on the pro forma as adjusted basis described above as of December 31, 2020, the differences between the existing shareholders and the new investors in this offering with respect to the number of ordinary shares purchased from us (including ordinary shares in the form of ADSs), the total consideration paid to us and the average price per ordinary share (including ordinary shares in the form of ADSs), based on the initial public offering price of $18.00 per ADS, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Ordinary shares / ADSs purchased		Total consideration		Average price per ordinary share/ADS
	Number	Percent	Amount	Percent	
Existing shareholders	30,871,751	76%	$ 230,930,594	57%	$ 7.48
New investors participating in this offering	9,750,000	24%	175,500,000	43%	18.00
Total	40,621,751	100%	406,430,594	100%	$ 10.01

If the underwriters exercise their option to purchase additional ADSs in full, the percentage of ordinary shares held by existing shareholders will decrease to 73% of the total number of ordinary shares outstanding after the offering, and the number of shares held by new investors will be increased to 11,212,500, or 27% of the total number of ordinary shares outstanding after this offering.

The foregoing tables and calculations are based on the number of ordinary shares outstanding as of December 31, 2020, and exclude:

- 240,584 ordinary shares issuable upon the exercise of options for ordinary shares outstanding as of December 31, 2020, with a weighted-average exercise price of $6.75 per share;
- 1,161,060 ordinary shares reserved for issuance under our 2020 Omnibus Plan as of December 31, 2020, which shares will no longer be reserved following this offering;
- 2,572,558 ordinary shares that will be made available for future issuance under the 2021 Plan, which will become effective in connection with this offering; and
- 467,738 ordinary shares that will be made available for future issuance under the ESPP, which will become effective in connection with this offering.

Selected consolidated financial data

The following tables present the selected consolidated financial data as of the dates and for the periods indicated for Achilles Therapeutics plc. We have derived the following selected consolidated statements of loss and other comprehensive loss for the years ended December 31, 2019 and 2020 and the summary consolidated balance sheet data as at December 31, 2019 and 2020 from our audited consolidated financial statement appearing elsewhere in this prospectus. The selected consolidated financial data set forth below should be read together with our audited consolidated financial statements for years ended December 31, 2019 and 2020 and the related notes to those statements, as well as the section of this prospectus captioned “Management’s discussion and analysis of financial condition and results of operations.”

	Year ended December 31,	
(in thousands, except share and per share data)	**2019**	**2020**
Statement of Operations and Comprehensive Loss Data:		
Operating expenses		
Research and development	$ 9,072	$ 22,629
General and administrative	4,703	11,098
Total operating expenses	13,775	33,727
Loss from operations	(13,775)	(33,727)
Other income (expense), net:		
Other income (expense)	(215)	531
Total other income (expense), net	(215)	531
Loss before provsion for income taxes	(13,990)	(33,196)
Provision for income taxes	—	(3)
Net loss	(13,990)	(33,199)
Other comprehensive income:		
Foreign currency translation adjustment	8,504	4,213
Comprehensive loss	$ (5,486)	$ (28,986)
Net loss per share attributable to ordinary shareholders—basic and diluted	$ (5.50)	$ (7.87)
Weighted average ordinary shares outstanding—basic and diluted	2,542,520	4,219,823
Pro forma net loss per share attributable to ordinary shareholders—basic and diluted[1]	$ (21.79)	$ (31.14)
Pro forma weighted average ordinary shares outstanding—basic and diluted[1]	642,169	1,066,208
Supplemental pro forma net loss attributable to ordinary shareholders—basic and diluted[2]		$ (1.82)
Supplemental pro forma weighted average ordinary shares outstanding—basic and diluted[2]		18,200,429

(in thousands)	As of December 31, 2019	2020
Balance Sheet Data:		
Cash and cash equivalents	$ 97,594	$ 177,849
Working capital[3]	99,204	171,174
Total assets	105,205	218,918
Convertible preferred shares	79	134
Total shareholders' equity	101,348	189,372

(1) The pro forma basic and diluted net loss per share to ordinary shareholders and pro forma weighted-average number of basic and diluted ordinary shares for the years ended December 31, 2019 and 2020, give effect to the one-for-0.2526 reverse share split of all ordinary shares except for N ordinary shares, and the one-for-0.1792 reverse share split of N ordinary shares, to be effected immediately prior to and conditional on the completion of this offering, but do not give effect to the conversion of all of Achilles Therapeutics plc's outstanding convertible preferred shares into ordinary shares. Such pro forma data will become the historical net loss per share attributable to ordinary shares, basic and diluted, of Achilles Therapeutics plc upon consummation of the corporate reorganization.

(2) The supplemental pro forma basic and diluted net loss per share to ordinary shareholders and pro forma weighted-average number of basic and diluted ordinary shares for the year ended December 31, 2020 give effect the reverse share split as if the conversion of all outstanding convertible preferred shares had occurred at the later of January 1, 2020 or the issuance dates of the preferred shares; further, the shares to be sold in the form of ADSs in this offering are excluded from the unaudited pro forma basic and diluted loss per share to ordinary shareholders and unaudited pro forma weighted-average number of basic and diluted ordinary shares for the year ended December 31, 2020.

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

We maintain the financial statements of each entity within the group in its local currency, which is also the entity's functional currency. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at rates of exchange prevailing at the balance sheet dates. Non-monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the date of the transaction. Exchange gains or losses arising from foreign currency transactions are included in other expense, net in the consolidated statement of comprehensive loss. For financial reporting purposes our financial statements have been presented in U.S. dollars, the reporting currency. The financial statements of entities are translated from their functional currency into the reporting currency as follows: assets and liabilities are translated at the exchange rates at the balance sheet dates, revenue and expenses are translated at the average exchange rates and shareholders' equity is translated based on historical exchange rates. Translation adjustments are not included in determining net loss but are included as a foreign exchange adjustment to other comprehensive loss, a component of shareholders' equity.

The representative exchange rates for the last day of the years ended December 31, 2019 and 2020 were £1.00 = $1.327 and £1.00 = $1.365, respectively.

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 section entitled "Selected consolidated financial data," our audited financial statements for the years ended December 31, 2019 and 2020, as well as related notes appearing elsewhere in this prospectus. Some of the information contained in this discussion and analysis, including information with respect to our plans and strategy for our business and our expectations with respect to liquidity and capital resources, includes forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, those risks and uncertainties described in "Risk factors" and "Special note regarding forward-looking statements" in this prospectus. Our actual results could differ materially from the results described in or implied by these forward-looking statements. Share and per share amounts discussed in this "Management's discussion and analysis of financial condition and results of operations" do not reflect the reverse share split to be effected immediately prior to and conditional on the completion of this offering.

Overview

We are a clinical immuno-oncology biopharmaceutical stage company developing transformative precision T cell therapies to treat multiple types of solid tumors. We are focused on advancing cancer therapies through our pioneering work in the field of tumor evolution and our belief that clonal neoantigens represent the most specific class of cancer cell targets. Our platform enables us to identify mutations formed early in the development of a cancer that give rise to antigens that are expressed by all of a patient's cancer cells but are absent from healthy tissue. We refer to this novel class of solid tumor targets as clonal neoantigens. To identify clonal neoantigens in a patient, we have developed a proprietary bioinformatic platform called PELEUS. This platform employs sophisticated statistical algorithms trained on the unique tumor genetic data derived from our exclusive license to data from the TRACERx study, which aims to analyze tumor samples from more than 840 non-small cell lung cancer, or NSCLC, patients. Once we have identified the clonal neoantigens, our proprietary manufacturing process, VELOS, uses the patient's T cells and blood-derived dendritic cells to create a Clonal Neoantigen Targeting T cell therapy, or cNeT, that specifically targets multiple clonal neoantigens to eradicate the tumor.

Since our inception in 2016, we have devoted substantially all of our resources to conducting research activities and clinical trials, organizing and staffing our company, business planning, raising capital and establishing our intellectual property portfolio. We have initially focused on two solid tumor types: advanced NSCLC and metastatic or recurrent melanoma as well as expanding into a range of additional indications. We do not have any products approved for sale and have not generated any revenue from product sales. To date, we have principally raised capital through the issuance and sale of our convertible preferred shares to outside investors. To date, we had received net cash proceeds of $230.9 million from investors in our preferred shares financings.

We have incurred significant operating losses since inception. We incurred total net losses of $14.0 million and $33.2 million for the fiscal years ended December 31, 2019 and 2020, respectively. As of December 31, 2020, we had an accumulated deficit of $58.0 million. These losses have resulted primarily from costs incurred in connection with research and development activities and general and administrative costs associated with our operations. We expect that our expense and capital requirements will increase substantially in connection with our ongoing activities, particularly if and as we:

- continue to develop our pipeline of discovery programs and conduct research and clinical activities for our existing programs for advanced NSCLC, metastatic or recurrent melanoma and other solid tumors;

- continue to innovate, improve and develop our technology platform, including continuing to develop and improve our PELEUS bioinformatic platform and VELOS manufacturing process and to evaluate new approaches to our manufacturing process;
- expand our Material Acquisition Platform, or MAP, network to increase our network of clinical sites;
- advance the development of our current programs, additional follow-on indications and any future product candidates into additional solid tumor indications;
- maintain, expand and protect our intellectual property portfolio;
- seek marketing approvals and complete any post-marketing studies, if required, for any of our product candidates that successfully complete clinical trials, if any;
- acquire or in-license additional product candidates and technologies;
- expand our infrastructure and facilities to accommodate our growing employee base and ongoing development activity;
- continue to improve our manufacturing process to create a fully closed end-to-end manufacturing process;
- expand our manufacturing infrastructure and facilities to support the manufacture of larger quantities of our product candidates for clinical development and potential commercialization globally;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval; and
- add operational, financial and management information systems and personnel, including personnel to support our research and development programs, any future commercialization efforts and our transition to operating as a public company following the completion of this offering.

Furthermore, following the closing of this offering, we expect to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company. We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for ATL001 or any future product candidates. If we obtain regulatory approval for ATL001 or any product candidates, we expect to incur significant expenses related to developing our commercialization capability to support product sales, marketing and distribution. As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through the sale of equity, debt financings or other capital sources, including potential collaborations with other companies or other strategic transactions. Our inability to raise capital as and when needed could have a negative impact on our financial condition and ability to pursue our business strategies. There can be no assurances, however, that the current operating plan will be achieved or that additional funding will be available on terms acceptable to us, or at all.

As of December 31, 2020, we had cash and cash equivalents of $177.8 million. We believe our existing cash and cash equivalents, together with the anticipated net proceeds from this offering, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months. See “—Liquidity and Capital Resources—Funding Requirements” below.

Impact of the COVID-19 coronavirus

The development of ATL001 for our current programs and additional follow-on indications as well as any future product candidates could be disrupted and materially adversely affected in the future by a pandemic, epidemic or outbreak of an infectious disease, such as the recent COVID-19 pandemic. The spread of COVID-19 has

impacted the global economy and has impacted our operations, including the interruption of our research activities and clinical trial and potential interruption to our supply chain. Interruption to our supply chain includes interruption of or delays in receiving supplies from the third parties we rely on to, among other things, conduct our manufacturing process. It is primarily due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems. For example, the COVID-19 pandemic has delayed enrollment in and dosing of our ongoing Phase I/IIa clinical trial for metastatic or recurrent melanoma and our ongoing Phase I/IIa clinical trial for advanced NSCLC. We managed to maintain operations at both our GMP manufacturing and research and development sites which culminated in the dosing of our first melanoma patient in May 2020 and the first NSCLC patient in June 2020 with further recruitment and dosing of patients through 2020. The causes of these delays includes government orders and site policies on account of the pandemic, some patients may be unwilling or unable to travel to study sites, enroll in trials, or be unable to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. These factors could delay our ability to conduct research activities and clinical trials or release clinical trial results, and/or delay our ability to obtain regulatory approval and commercialize ATL001 and any product candidates. Furthermore, COVID-19 could affect our employees or the employees of research sites and service providers on whom we rely as well as those of companies with which we do business, including our suppliers and contract manufacturing organizations, thereby disrupting our business operations. Quarantines and travel restrictions imposed by governments in the jurisdictions in which we and the companies with which we do business operate could materially impact the ability of employees to access research and clinical sites, laboratories, manufacturing sites and offices. We have implemented work-at-home policies and may experience limitations in employee resources. Our increased reliance on personnel working from home may negatively impact productivity, or disrupt, delay, or otherwise adversely impact our business.

We are still assessing our business plans and the impact the COVID-19 pandemic may have on our ability to advance the testing, development and manufacturing of ATL001 and any future product candidates, including as a result of adverse impacts on the research sites, service providers, vendors, or suppliers on whom we rely, or to raise financing to support the development of product candidates. No assurances can be given that this analysis will enable us to avoid part or all of any impact from the spread of COVID-19 or its consequences, including downturns in business sentiment generally or in our sector in particular. We cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if we or any of the third parties on whom we rely or with whom we conduct business, were to experience shutdowns or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and adversely impacted.

License agreements

CRT license

In May 2016, we entered into a License Agreement, or the License Agreement, with CRT pursuant to which we obtained access rights to intellectual property and Know-How from the Whole TRACERx Study. Under the license agreement, we are granted an exclusive, sublicensable license to the TRACERx patents and bioinformatic data for use in: (i) the fields of neoantigen cell therapies and adoptive cell transfer neoantigen diagnostics for use in research and the potential development of products for commercialization; and (ii) the neoantigen therapeutic vaccine field for research and development but not in the development of products for commercial sale. We also obtained a non-exclusive license to the TRACERx bioinformatic pipeline, patient sequencing and medical data, know-how, and materials.

CRT additionally granted us certain rights to new patent applications filed by the Founding Institutions in respect of inventions resulting from the TRACERx study through February 2023, including automatic exclusive licenses to patent rights relating to non-severable improvements of technology covered by the original

TRACERx patents and non-exclusive rights to severable improvements. CRT granted us the right of first negotiation to license certain patent rights generated by our founders outside of the TRACERx study which relate to the licensed technology.

In July 2017, we obtained a non-exclusive license to the LOHHLA patent under the License Agreement. In October 2018, we obtained an exclusive license to the LOHHLA patent under an addendum to the License Agreement. In May 2018, we entered into an amendment to the License Agreement that created an additional sample period through July 2020 and specified additional materials to be subject to the License Agreement related to the immunology side study. The License Agreement was subsequently amended in July 2020 and November 2020.

Upon execution of the License Agreement we granted CRT 1,568,420 B ordinary shares and 268,420 C ordinary shares. The fair value of the B and C ordinary shares were $0.14 per share. We recorded $0.3 million as intellectual property research and development expense in 2016 and corresponding additional paid-in capital. None of the vesting conditions of C ordinary shares were met and these shares were converted to deferred shares in September 2019. We are obligated to pay CRT milestone success payments up to an aggregate of £6.5 million for therapeutic products, and milestone success payments up to an aggregate of £0.8 million for non-therapeutic products, as well as a sub-single digit to low-single digit percentage royalty on net sales of products that utilize the licensed intellectual property, subject to certain customary reductions. The royalty obligations continue on a product-by-product and country-by-country basis until the later of: (i) the date there ceases to be a valid patent claim covering such product in the country in which it is sold; or (ii), with respect to contribution royalty products, ten years from the first commercial sale of the product, and with respect to a patent royalty product, five years from the first commercial sale of the product. On a product-by-product basis, we may also elect to provide other cash consideration at fair market value and forgo the milestone or royalty payment.

No expenses were recorded for the years ended December 31, 2019 and 2020 related to the CRT License Agreement.

Components of our results of operations

Revenue

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from the sale of products in the foreseeable future. If our development efforts for ATL001 or any of our future candidates are successful and result in regulatory approval, we may generate revenue in the future from product sales.

Operating expenses

Research and development expenses

Research and development expenses consist primarily of costs incurred in connection with the research and development of ATL001 for our current programs, additional follow-on indications and enhancement of our existing technology platform. Research and development expenses consist of:

- expenses incurred under agreements with contract research organizations, or CROs, as well as investigative sites and consultants that conduct our clinical trials, research activities and other scientific development services;
- manufacturing scale-up expenses and the cost of acquiring and manufacturing clinical trial materials;
- expenses to acquire technologies to be used in research and development;

- employee-related expenses, including salaries, related benefits, travel and share-based compensation expense for employees engaged in research and development functions;
- costs of outside consultants, including their fees, share-based compensation and related travel expenses;
- the costs of laboratory supplies and acquiring, developing and manufacturing clinical trial materials;
- costs related to compliance with regulatory requirements;
- facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs; and
- upfront, milestone and management fees for maintaining licenses under our third-party licensing agreements.

We expense research and development costs as incurred. We recognize external development costs based on an evaluation of the progress to completion of specific tasks using information provided to us by our service providers. As a result, our research and development expenses may vary substantially from period to period based on the timing of our research and development activities. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as a prepaid expense or accrued research and development expenses.

U.K. research and development tax credits are recorded as an offset to research and development expense. See “—Income Tax Expenses.”

Our direct research and development expenses are tracked on an indication by indication basis and consist primarily of external costs, such as fees paid to outside consultants, CROs and central laboratories in connection with our research activities, process development, manufacturing and clinical development activities. License fees and other costs incurred after a product candidate has been selected that are directly related to a product candidate are included in direct research and development expenses for that program. License fees and other costs incurred prior to designating a product candidate are included in other program expense. We do not allocate employee costs, costs associated with our discovery efforts, laboratory supplies, and facilities, including depreciation or other indirect costs, to specific programs because these costs are deployed across multiple programs and, as such, are not separately classified. We use internal resources primarily to oversee the research and development as well as to manage our research activities, process development, manufacturing and clinical development activities. These employees work across multiple programs and, therefore, we do not track their costs by program.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials and related product manufacturing expenses. As a result, we expect that our research and development expenses will continue to increase over the next several years as we: (i) expedite the clinical development and obtain marketing approval for ATL001 for advanced NSCLC and metastatic or recurrent melanoma; (ii) initiate additional clinical trials for ATL001 or any future product candidates, including for the treatment of renal, head and neck, triple negative breast and bladder; (iii) improve the efficiency and scalability of our manufacturing processes and supply chain including enhancing the capability of our PELEUS platform for selecting clonal neoantigens; and (iv) build our in-house process development, analytical and manufacturing capabilities and continue to discover and develop additional product candidates, increase personnel costs and prepare for regulatory filings related to ATL001 and any future product candidates. We also expect to incur additional expenses related to milestone, royalty payments and maintenance fees payable to third parties with whom we have entered into license agreements to acquire the rights related to TRACERx.

The successful development and commercialization of ATL001 or any of our future product candidates is highly uncertain. This is due to the numerous risks and uncertainties associated with development and commercialization, including the following:

- completing research activities for the development of ATL001 and identifying new cNeT product candidates;
- establishing an appropriate safety profile with IND- and CTA-enabling studies;
- successful patient enrollment in, and the initiation and completion of, clinical trials;
- the timing, receipt and terms of any marketing approvals from applicable regulatory authorities and reimbursement and market access from third-party payors;
- our ability to establish commercial manufacturing capabilities and maintain suitable arrangements with third-party manufacturers for ATL001 and any future product candidates;
- obtaining, maintaining, defending and enforcing patent claims and other intellectual property rights;
- defending against third-party infringement, misappropriation or other violation of intellectual property rights claims;
- significant and changing government regulation;
- establishing and maintaining temperature controlled product logistics;
- launching commercial sales of ATL001 and any future product candidates, if and when approved, whether alone or in collaboration with others; and
- maintaining a continued acceptable safety profile of the product candidates following approval.

A change in the outcome of any of these variables with respect to the development of ATL001 and any future product candidates in development could mean a significant change in the costs and timing associated with the development of these product candidates. For example, if the FDA, EMA or another regulatory authority were to delay our planned start of clinical trials or require us to conduct clinical trials or other testing beyond those that we currently expect, or if we experience significant delays in enrollment in any of our planned clinical trials, we could be required to commit significant additional financial resources and time on the completion of clinical development of that product candidate.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related benefits, share-based compensation expense, travel and other expenses incurred by personnel in executive, finance and administrative functions. These expenses include professional fees for legal, including patent costs, consulting, accounting and audit services. We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research activities and development of ATL001 and any future product candidates.

We also anticipate we will continue to incur increased accounting, audit, legal, regulatory, compliance, director and officer insurance costs as well as investor and public relations expenses associated with being a public company. Additionally, if and when we believe a regulatory approval of a product candidate appears likely, we anticipate an increase in payroll and expense as a result of our preparation for commercial operations, especially as it relates to the sales and marketing of our product candidate.

Other income (expense), net

Interest income

Interest income consists primarily of interest earned on our cash. We expect that our interest income will increase as we invest the cash received from our recent sales of convertible preferred shares financing that took place in the fourth quarter of 2020 and the net proceeds from this offering.

Other expense

Foreign currency transactions in currencies different from the functional currency of our entity are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange differences resulting from the settlement of such transactions and from the translation at period-end exchange rates in foreign currencies are recorded in other income (expense), net in the statement of operations and comprehensive loss. As such, our other income (expense), net may be impacted by future changes in exchange rates. See "—Quantitative and Qualitative Disclosures About Market Risks" for further discussion.

Income taxes

We are subject to corporate taxation in the United States and the United Kingdom. Due to the nature of our business, we have generated losses since inception and have therefore not paid United Kingdom corporation tax. As a company that carries out extensive research and development activities, we seek to benefit from one of two U.K. R&D tax credit cash rebate regimes: Small and Medium Enterprise, or SME, Program and the Research and Development Expenditure Credit, or RDEC, Program. Qualifying expenditures largely comprise employment costs for research staff, consumables and certain internal overhead costs incurred as part of research projects for which we do not receive income.

Based on criteria established by Her Majesty's Revenue and Customs, or HMRC, a portion of expenditures being carried in relation to our pipeline R&D, clinical trials management and manufacturing development activities were eligible for the SME Program for the years ended December 31, 2019 and 2020. We claimed the tax credit of 2019 which was paid in 2020. We will continue to assess whether it is possible to qualify under the more favorable SME regime for future accounting periods.

Unsurrendered U.K. losses may be carried forward indefinitely to be offset against future taxable profits, subject to numerous utilization criteria and restrictions. The amount that can be offset each year is limited to £5.0 million plus an incremental 50% of U.K. taxable profits. After accounting for tax credits receivable, we had accumulated tax losses for carry forward in the United Kingdom of $37.1 million as of December 31, 2020. We have recorded an insignificant amount of income tax provisions for the year ended December 31, 2020, which relate to income tax obligations of our operating company in the U.S., which generates a profit for tax purposes.

Benefit from research and development, or R&D tax credit, is received in the U.K. and recorded as an offset to research and development expenses. The U.K. research and development tax credit, as described below, is fully refundable to us and is not dependent on current or future taxable income. As a result, we have recorded the entire benefit from the U.K. research and development tax credit as a benefit which is included in our net loss before income tax and accordingly, not reflected as part of the income tax provision. If, in the future, any U.K. R&D tax credits generated are needed to offset a corporate income tax liability in the U.K., that portion would be recorded as a benefit within the income tax provision and any refundable portion not dependent on taxable income would continue to be recorded as an offset to research and development expenses.

In the event we generate revenues in the future, we may benefit from the U.K. "patent box" regime that allows profits attributable to revenues from patents or patented products to be taxed at an effective rate of 10%. Value Added Tax, or VAT, is broadly charged on all taxable supplies of goods and services by VAT-registered

businesses. Under current rates as determined for VAT purposes, the goods or services supplied is added to all sales invoices and is payable to HMRC. Similarly, VAT paid on purchase invoices is generally reclaimable from HMRC.

Results of operations

Comparison of the years ended December 31, 2019 and 2020

The following table summarizes our results of operations for the years ended December 31, 2019 and 2020 (in thousands):

	Year ended December 31,		
	2019	**2020**	**Change**
Operating expenses:			
Research and development	$ 9,072	$ 22,629	$ 13,557
General and administrative	4,703	11,098	6,395
Total operating expenses	13,775	33,727	19,952
Loss from operations	(13,775)	(33,727)	(19,952)
Other income (expense), net:			
Other income (expense)	(215)	531	746
Total other income (expense), net	(215)	531	746
Loss before provision for income taxes	(13,990)	(33,196)	(19,206)
Provision for income taxes	—	(3)	(3)
Net loss	$ (13,990)	$ (33,199)	$ (19,209)

Research and development expenses

The table below summarizes our research and development expenses incurred by program (in thousands):

	Year ended December 31,		
	2019	**2020**	**Change**
Direct research and development expense by program:			
NSCLC	$ 1,366	$ 5,432	$ 4,066
Melanoma	491	4,512	4,021
Other pre-clinical and technology development cost	1,661	2,984	1,323
Unallocated research and development expense:			
Personnel expenses	4,626	7,200	2,574
Other expenses	928	2,501	1,573
Total research and development expenses	$ 9,072	$ 22,629	$ 13,557

Research and development expenses were net of research and development tax credit reimbursement of $3.1 million and $5.8 million for the year ended December 31, 2019 and 2020, respectively. The net increase in research and development expenses was $13.6 million for the year ended December 31, 2020 compared to the year ended December 31, 2019. The net increase in research and development expense was primarily attributable to a net increase of $4.1 million in direct expenses as a result of optimization activities for our advanced NSCLC program, a net increase of $4.0 million in direct expense of our metastatic or recurrent melanoma program and a net increase of $1.3 million in direct costs related to our good manufacturing

practices, or GMP, manufacturing spend and other exploratory program. Our unallocated research and development expense increased by $4.2 million for the year ended December 31, 2020, primarily as a result of increased facility costs due to the lease of new laboratory space and the increased costs of supporting the increased headcount in our research and development functions and their research efforts.

General and administrative expenses

The following table summarizes our general and administrative expenses for the years ended December 31, 2019 and 2020 (in thousands):

	Year ended December 31,		
	2019	**2020**	**Change**
Personnel expenses	$ 3,132	$ 6,835	$ 3,703
Professional services fees	830	2,273	1,443
Facilities and other expense	741	1,990	1,249
	$ 4,703	$ 11,098	$ 6,395

General and administrative expenses were $4.7 million for the year ended December 31, 2019, compared to $11.1 million for the year ended December 31, 2020. The increase of $6.4 million consisted primarily of an increase of $3.7 million in personnel expenses due to an overall increase in headcount and the recognition of additional share-based compensation, an increase of $1.4 million in legal and professional fees due to activities related to preparations for becoming a public company and an increase of $1.3 million in facilities and other expenses due to the lease of new office space and increased costs of supporting the expansion of our business.

Total other income (expense), net

Other income (expense), net was income of $0.5 million for the year ended December 31, 2020, compared to expense of $0.2 million for the year ended December 31, 2019. The increase in other income of $0.7 million was primarily due to an increase of $0.2 million in interest income and an increase of $0.5 million in foreign exchange gain.

Provision for Income Taxes

The provision for income taxes was less than $0.1 million for the year ended December 31, 2020, which is related to income tax obligations of our operating company in the U.S., which generates a profit for tax purposes. There is no provision for income taxes for the year ended December 31, 2019.

Liquidity and capital resources

Since our inception, we have not generated any revenue from product sales or any other sources and have incurred significant net losses in each period and on an aggregate basis. We have not yet commercialized any product candidates and we do not expect to generate revenue from sales of any product candidates for several years, if at all. We have funded our operations to date primarily with proceeds from the sale of preferred shares and ordinary shares.

In 2019, we received net cash proceeds of $13.3 million and $80.3 million from the issuance of our Series A and Series B convertible preferred shares, respectively, translated at the exchange rate on the day the respective financing transactions took place. In 2020, we received net cash proceeds of $43.9 million and $69.9 million from the issuance of our Series B and Series C convertible preferred shares, respectively, translated at the exchange rate on the day the respective financing transactions took place. As of December 31, 2020, we had cash and cash equivalents of $177.8 million.

We currently have no ongoing material financing commitments, such as lines of credit or guarantees, that are expected to affect our liquidity over the next five years, other than our purchase and lease obligations described below.

Cash flows

The following table summarizes our cash flows for each of the periods presented (in thousands):

	Year ended December 31,	
	2019	**2020**
Net cash used in operating activities	$ (14,142)	$ (25,252)
Net cash used in investing activities	(942)	(11,847)
Net cash provided by financing activities	93,622	113,704
Effect of exchange rate changes on cash, cash equivalents and restricted cash	8,373	3,650
Net increase in cash	$ 86,911	$ 80,255

Net cash used in operating activities

During the year ended December 31, 2019, net cash used in operating activities was $14.1 million, primarily resulting from our net loss of $14.0 million, adjusted for share-based compensation of $0.7 million and depreciation and amortization of $0.3 million. The net loss was also partially offset by $1.2 million increase in working capital which is primarily related to the accrual of research and development tax credit reimbursement due from the tax authority.

During the year ended December 31, 2020, net cash used in operating activities was $25.3 million, primarily resulting from our net loss of $33.2 million, adjusted for share-based compensation of $3.0 million and depreciation and amortization of $0.8 million. The net loss was also partially offset by changes in right of use assets and operating lease liabilities of $1.2 million and $5.2 million related to changes in components of working capital due to increased accounts payable, accrued research and development expenses incurred on our preclinical trials and increased accrued facility costs in conjunction with lease of new laboratory and office space. The net loss was also partially offset by changes in other long-term liabilities of $0.6 million due to reinstatement accrual of one leased office. In addition, changes in other assets of $2.8 million due to rent deposit paid during the year ended December 31, 2020 increased cash used.

Net cash used in investing activities

During the year ended December 31, 2019, net cash used in investing activities was $0.9 million, primarily driven by purchases of property and equipment related to lab equipment and leasehold improvement.

During the year ended December 31, 2020, net cash used in investing activities was $11.8 million, primarily driven by purchases of property and equipment related to lab equipment and leasehold improvement.

Net cash provided by financing activities

During the year ended December 31, 2019, net cash provided by financing activities was $93.6 million, consisting of $13.3 million and $80.3 million net cash proceeds from our sale and issuance of Series A and Series B convertible preferred shares, respectively.

During the year ended December 31, 2020, net cash provided by financing activities was $113.7 million, consisting of $43.9 million and $69.9 million net cash proceeds from our sale and issuance of Series B and Series C convertible preferred shares, respectively. The increase was also offset by the payment of initial public offering costs of $0.1 million.

Funding requirements

We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance the research activities, manufacturing and clinical trials of product candidates. In addition, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations and other expenses that we did not incur as a private company.

We believe our existing cash and cash equivalents, together with the anticipated proceeds from this offering, 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 wrong, and we could utilize our available capital resources sooner than we expect. As we progress with our development programs and the regulatory review process, we expect to incur significant expenses related to product manufacturing, pre-commercial activities and commercialization.

Because of the numerous risks and uncertainties associated with research, development and commercialization of product candidates and programs, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on and could increase significantly as a result of many factors, including:

- the initiation, progress, timing, costs and results of our pipeline discovery programs and clinical activities for our existing programs for advanced NSCLC and metastatic or recurrent melanoma, and any additional product candidates or follow-on indications that we may develop or pursue;
- the cost to establish, maintain, expand, enforce and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with licensing, preparing, filing, prosecuting, defending and enforcing any patents or other intellectual property rights;
- our ability to enroll clinical trials in a timely manner and to quickly resolve any delays or clinical holds that may be imposed on our development programs;
- timing delays with respect to development of our current and any future product candidates, including as a result of the COVID-19 pandemic;
- the costs of expanding our facilities to accommodate our expected growth in personnel;
- the costs, timing and outcome of potential future commercialization activities, including manufacturing, marketing, sales and distribution for our product candidates for which we receive marketing approval;
- the extent to which we acquire technologies;
- the sales price and availability of adequate third-party coverage and reimbursement for our product candidates, if and when approved; and
- the costs of operating as a public company.

Until such time, if ever, that we can generate product revenue sufficient to achieve profitability, we expect to finance our cash needs through equity offerings, debt financings, government or other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity, current ownership interests will be diluted. If we raise additional funds through government or third-party funding, collaboration agreements, strategic alliances, licensing arrangements or marketing and distribution arrangements, we may

have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. 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 are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market products or product candidates that we would otherwise prefer to develop and market ourselves.

Contractual obligations and commitments

The following table summarizes our contractual obligations as of December 31, 2020 and the effects that such obligations are expected to have on our liquidity and cash flows in future periods (in thousands):

	Total	Less than 1 year	1 to 3 years	4 to 5 years	More than 5 years
Purchase commitments[1]	$ 4,329	$ 3,561	$ 768	$ —	$ —
Operating lease commitments[2]	17,590	4,413	9,271	3,906	—
Total	$21,919	$ 7,974	$10,039	$3,906	$ —

(1) Amounts reflect commitments for costs associated with our certain vendors, which we engaged to provide clinical trial materials and contractual commitments for capital expenditures. Our purchase commitment included non-cancelable minimum quantities to be purchased as of December 31, 2020.

(2) Amounts reflect minimum payments due for our office and laboratory space leases as of December 31, 2020.

We enter into contracts in the normal course of business with CROs and other third-party vendors for clinical trials, clinical and commercial supply manufacturing, support for pre-commercial activities, research and development activities and other services and products for our operations. Our agreements generally provide for termination within 30 to 90 days of notice. Such agreements are cancelable contracts and are not included in the table of contractual obligations and commitments.

We may incur potential contingent payments upon our achievement of clinical, regulatory and commercial milestones, as applicable, or we may be required to make royalty payments under the CRT license agreements. Due to the uncertainty of the achievement and timing of the events requiring payment under these agreements, the amounts to be paid by us are not fixed or determinable at this time and have not been included in the table above.

Critical accounting policies and significant judgments and estimates

Our financial statements are prepared in accordance with U.S. GAAP. The preparation of our financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, costs and expenses, and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our financial statements appearing at the end of this prospectus, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our financial statements.

Accrued research and development expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing open contracts and purchase orders, identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual costs. We make estimates of our accrued expenses as of each balance sheet date in the financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of these estimates with the service providers and make adjustments if necessary. The estimate of accrued research and development expense is dependent, in part, upon the receipt of timely and accurate reporting from CROs and other third-party service providers. Examples of estimated accrued research and development expenses include fees paid to:

- vendors in connection with preclinical development activities; and
- CROs and investigative sites in connection with preclinical studies and clinical trials.

We base our expenses related to research activities and clinical trials on our estimates of the services received and efforts expended pursuant to quotes and contracts with multiple research institutions and CROs that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the expense.

Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, we adjust the accrual or the amount of prepaid expenses accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in reporting amounts that are too high or too low in any particular period. To date, there have not been any material adjustments to our prior estimates of accrued research and development expenses.

Share-based compensation

We measure share-based awards granted to employees, non-employees and directors based on the fair value on the date of the grant. Forfeitures are accounted for as they occur. We issue share-based awards with service-based vesting conditions and/or performance-based vesting conditions. For equity awards that vest based on a service condition, the share-based compensation expense is recognized on a straight-line basis over the requisite service period. For equity awards that vest based on a combination of service and performance conditions, we recognize share-based compensation expense using a straight-line basis over the requisite service period when the achievement of a performance-based milestone is probable, based on the relative satisfaction of the performance condition as of the reporting date.

Determination of the fair value of the ordinary shares

As there has been no public market for our ordinary shares to date, the estimated fair value of our ordinary shares has been determined by our board of directors as of the date of each grant, with input from management, considering our most recently available third-party valuations of our ordinary shares, and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These

independent third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. Our ordinary share valuations were prepared using an option pricing method, or OPM, which used either market approach based on precedent transactions in the ordinary and preferred shares or market adjusted equity value method to estimate our enterprise value. The OPM treats ordinary shares and preferred shares as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the ordinary share has value only if the funds available for distribution to shareholders exceeded the value of the preferred share liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger. A discount for lack of marketability of the ordinary share is then applied to arrive at an indication of value for the ordinary share. The future value of the ordinary share is discounted back to the valuation date at an appropriate risk-adjusted discount rate to arrive at an indication of value for the ordinary share.

In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our ordinary shares as of each grant date, including:

- the prices at which we sold preferred shares and the superior rights and preferences of the preferred shares relative to our common shares at the time of each grant;
- the progress of our research and development programs, including the status of both current and planned clinical trials;
- our stage of development and our business strategy;
- external market conditions affecting the biotechnology industry, and trends within the biotechnology industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our ordinary and convertible preferred shares;
- the likelihood of achieving a liquidity event, such as an initial public offering, or IPO, or a sale of our company in light of prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our share-based compensation expense could be materially different.

Once a public trading market for our ordinary shares has been established in connection with the closing of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our ordinary shares in connection with our accounting for granted share options and other such awards we may grant, as the fair value of our ordinary shares will be determined based on the quoted market price of our ordinary shares.

Employee shares granted

We typically grant incentive shares and restricted ordinary shares. The following table sets forth, by grant date, the number of shares subject to the equity awards granted since January 1, 2019 and the fair value of ordinary shares per share on each grant date:

Grant Date	Number of D-M Shares Granted	Number of N Shares Granted	Fair value of D-M Ordinary Shares		Fair value of N Ordinary Shares	
September 18, 2019	291,900	—	£ 0.74	$ 0.89	N/A	N/A
December 17, 2019	3,214,229	—	£ 0.77	$ 1.00	N/A	N/A
January 8, 2020	32,820	—	£ 0.77	$ 1.00	N/A	N/A
January 20, 2020	8,204	—	£ 0.77	$ 1.00	N/A	N/A
September 24, 2020	675,231	—	£ 1.15	$ 1.47	N/A	N/A
October 1, 2020	1,757,857	—	£ 1.15	$ 1.48	N/A	N/A
October 9, 2020	1,055,211	—	£ 1.15	$ 1.50	N/A	N/A
October 21, 2020	138,321	—	£ 1.37	$ 1.80	N/A	N/A
November 11, 2020	24,766	—	£ 1.37	$ 1.81	N/A	N/A
November 18, 2020	—	1,045,349	N/A	N/A	£ 1.37	$ 1.82
November 19, 2020	629,069	1,877,239	£ 1.49	$ 1.97	£ 1.37	$ 1.81
November 20, 2020	—	610,641	N/A	N/A	£ 1.37	$ 1.82
November 21, 2020	9,907	—	£ 1.49	$ 1.98	N/A	N/A
November 23, 2020	4,953	—	£ 1.49	$ 1.98	N/A	N/A
November 24, 2020	742,992	431,953	£ 1.49	$ 1.99	£ 1.37	$ 1.83

Determination of the Fair Value of the Share Options

We measure share options granted to employees based on the fair value on the date of the grant and recognize the corresponding compensation expense of those share options over the requisite service period, which is generally the vesting period of the respective share options. We have only issued share options with service-based vesting conditions and record the expense for these awards using the straight-line method.

We estimate the fair value of each share options grant using the Black-Scholes option-pricing model, which uses as inputs the estimated fair value of our ordinary shares and assumptions we make for the volatility of our ordinary shares, the expected term of our share options, the risk-free interest rate for a period that approximates the expected term of our share options and our expected dividend yield.

We determined the assumptions for the Black-Scholes option-pricing model as discussed below. Each of these inputs is subjective and generally requires significant judgment to determine.

- Fair Value of Our Ordinary Shares. Prior to the completion of this offering, our ordinary shares were not publicly traded, and therefore we estimated the fair value of our ordinary shares, as discussed in “Determination of the Fair Value of Ordinary Shares” above.
- Expected Term. The expected term represents the period that the share-based awards are expected to be outstanding. The expected term of share options granted has been determined using the simplified method, which uses the midpoint between the vesting date and the contractual term.
- Risk-Free Interest Rate. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the date of grant for zero-coupon U.S. Treasury constant maturity notes with terms approximately equal to the share-based award’s expected term.

- Expected Volatility. Because we do not have a trading history of our ordinary shares, the expected volatility was derived from the average historical stock volatilities of several public companies within our industry that we consider to be comparable to our business over a period equivalent to the expected term of the share-based awards.
- Dividend Rate. The expected dividend is zero as we have not paid and do not anticipate paying any dividends in the foreseeable future.

If any of the assumptions used in the Black-Scholes model change significantly, share-based compensation for future awards may differ materially compared with the awards granted previously.

No share options were granted during the year ended December 31, 2019. The weighted-average fair value of share options granted during the year ended December 31, 2020 was $0.84. The weighted-average assumptions utilized to determine the fair value of options granted are presented in the following table:

	Year Ended December 31, 2020
Expected term (in years)	3.21 years
Expected volatility	73.8%
Expected dividend yield	0.00%
Risk-free interest rate	0.20%
Fair value of underlying ordinary shares	$ 1.60

Options granted

The following table sets forth by grant date the number of shares subject to options granted since January 1, 2019, the per share exercise price of the options, the per share fair value of our common shares on each grant date, and the per share estimated fair value of the options:

Grant date	Number of shares subject to options granted	Per share exercise price of options		Per share fair value of ordinary shares on grant date		Per share estimated fair value of options	
October 15, 2020	523,570	£1.15	$1.52	£1.15	$1.52	£0.54	$0.72
November 16, 2020	428,980	£1.37	$1.81	£1.37	$1.81	£0.70	$0.93
February 2, 2021	504,733	£2.12	$2.89	£2.12	$2.89	£1.33	$1.81

Internal control over financial reporting

As a public reporting company, we will be required to report annually on the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act.

Emerging growth company and smaller reporting company status

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an “emerging growth company” may take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Therefore, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to avail ourselves of this extended transition period and, as a result, we may adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-public companies instead of the dates required for other public companies. However, the Company may early adopt these standards.

In addition, as an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- the ability to present only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act; and
- an exemption from new or revised financial accounting standards until they would apply to private companies and from compliance with any new requirements adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotation.

We may take advantage of these exemptions for up to the last day of the fiscal year ending after the fifth anniversary of this offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these exemptions.

Off-balance sheet arrangements

As of December 31, 2020, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K, such as the use of unconsolidated subsidiaries, structured finance, special purpose entities or variable interest entities.

Recently issued accounting pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2 to our financial statements appearing at the end of this prospectus.

Quantitative and qualitative disclosures about market risk

We are exposed to market risks in the ordinary course of our business, which are principally limited to interest rate fluctuations and foreign currency exchange rate fluctuations. We maintain significant amounts of cash and cash equivalents that are in excess of federally insured limits in various currencies, placed with one or more financial institutions for varying periods according to expected liquidity requirements.

Interest rate sensitivity

As of December 31, 2020, we had cash and cash equivalents of $177.8 million. Our exposure to interest rate sensitivity is impacted by changes in the underlying U.K. and U.S. bank interest rates. Our surplus cash has been invested in interest-bearing savings accounts from time to time. We have not entered into investments for trading or speculative purposes. Due to the conservative nature of our investment portfolio, which is predicated on capital preservation of investments with short-term maturities, we do not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our portfolio, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates.

As of December 31, 2020, we had no debt outstanding and are therefore not subject to interest rate risk related to debt.

Foreign currency exchange risk

We maintain our financial statements in our functional currency, which is pound sterling. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at rates of exchange prevailing at the balance sheet dates. Non-monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the date of the transaction. Exchange gains or losses arising from foreign currency transactions are included in the determination of net income (loss) for the respective periods. We recorded foreign currency losses of $0.4 million and foreign currency gains of $0.1 million for the years ended December 31, 2019 and 2020, respectively. These Exchange gains or losses arising from foreign currency transactions are included in other income (expense), net in the statement of comprehensive loss.

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

We do not currently engage in currency hedging activities in order to reduce our currency exposure, but we may begin to do so in the future. Instruments that may be used to hedge future risks may include foreign currency forward and swap contracts. These instruments may be used to selectively manage risks, but there can be no assurance that we will be fully protected against material foreign currency fluctuations.

Business

Overview

We are a clinical stage immuno-oncology biopharmaceutical company developing transformative precision T cell therapies to treat multiple types of solid tumors. We are focused on advancing cancer therapies through our pioneering work in the field of tumor evolution and our belief that clonal neoantigens represent the most specific class of cancer cell targets. Our platform enables us to identify mutations formed early in the development of a cancer that give rise to antigens that are expressed by all of a patient's cancer cells but are absent from healthy tissue. We refer to this novel class of solid tumor targets as clonal neoantigens. To identify clonal neoantigens in a patient, we have developed a proprietary bioinformatic platform called PELEUS. This platform employs sophisticated statistical algorithms trained on the unique tumor genetic data derived from our exclusive license to data from the TRACERx study, which aims to analyze tumor samples from more than 840 non-small cell lung cancer, or NSCLC, patients. Once we have identified the clonal neoantigens, our proprietary manufacturing process, VELOS, uses the patient's T cells and blood-derived dendritic cells to create a Clonal Neoantigen Targeting T cell therapy, or cNeT, that specifically targets multiple clonal neoantigens to eradicate the tumor. We are currently conducting two open-label Phase I/IIa trials to evaluate our cNeT product candidate, ATL001, in advanced NSCLC and metastatic or recurrent melanoma and expect to report interim data from these trials in second half of 2022. We are also using our Material Acquisition Platform, or MAP, network, which consists of a network of participating medical facilities, to collect tissue samples from other tumor types, such as head and neck squamous cell carcinoma, or HNSCC, renal cell carcinoma, or RCC, triple negative breast cancer, or TNBC, and bladder cancer, to develop our PELEUS platform to identify clonal neoantigens in these tumor types. We expect to submit investigational new drug applications, or INDs, for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.

Cancers originate from mutations in the DNA of individual cells. Some of these mutations promote uncontrolled proliferation, metastasis and evasion of the immune system. Tumors within any given patient evolve in a Darwinian branched manner, where the mutations present at the point of a cell becoming cancerous will be carried to all future cells and are therefore present in every future tumor cell of the patient. Additional mutations continue to arise in response to environmental pressures, carcinogens and genomic instability. These additional mutations increase the intra-tumor genomic variation and are present in some tumor cells but not others.

Mutations can give rise to neoantigens expressed in the tumor cells. The neoantigens arising from the early mutations present at the time of cell transformation are referred to as clonal neoantigens while those that arise later in tumor development are referred to as subclonal neoantigens. As a result of this branched evolution, clonal neoantigens are expressed in every tumor cell, while subclonal neoantigens are expressed only by a fraction of tumor cells. Despite the recent advances in cancer therapy, no therapy to date has been able to specifically identify and target only the clonal neoantigens found throughout the tumor. We believe this is a key reason for limitations in efficacy and durability of many of today's cancer therapies.

In the last decade numerous clinical trials have validated the therapeutic potential of the immune system in the fight against cancer. Immunotherapy approaches include checkpoint inhibitors, or CPIs, which inhibit the down-regulation of endogenous T cell activity, and adoptive cell therapies, or ACTs, that expand a patient's own tumor-targeting T cells *in vitro* followed by their transfer back into the patient. There are different types of ACTs, primarily differentiated by the approach used to target the T cells to the tumor, including chimeric antigen receptor therapy, or CAR-T, T cell receptor therapy, or TCR-T, and tumor-infiltrating lymphocytes, or TIL, therapy. These approaches are based on harnessing T cells to attack tumor antigens. Despite the clinical successes of CPI and ACT therapies, we believe their clinical benefit has generally been limited by an inability to

specifically target the antigens that are uniformly expressed by solid tumors and not expressed on healthy tissue. This has resulted in a lack of durable response, off target activity and toxicity concerns.

TIL therapeutic approaches are based on the observation that tumor reactive T cells are found in a patient's tumor at higher frequencies than in other tissues, such as blood and healthy tissue. In standard TIL therapy, T cells are extracted from a patient's tumor, activated and expanded to large numbers before being reinfused back into the patient. Despite the impressive results of standard TIL therapies seen in clinical trials, we believe their clinical benefit has been limited by their inability to specifically target clonal neoantigens, thereby targeting the entire tumor, while sparing healthy tissue. This lack of specificity is a result of the inability of standard TIL therapies to control selection of targeted antigens; instead, all T cells within the patient's tumor sample are expanded and the resulting composition of the T cell therapy is not known or controlled. In addition, manufacturing processes for standard TIL therapies employ non-physiological T cell expansion methods, which we believe result in less functionally fit T cells in the final TIL product. We believe that this lack of control over T cell specificity and T cell fitness limits the potential of standard TIL therapies and provides an opportunity to develop a precision TIL therapy.

Our approach—precision TILs targeting clonal neoantigens in solid tumors

We believe that targeting clonal neoantigens is the key to unlocking immunotherapy in solid tumors and have developed our platform to specifically address these targets. By targeting multiple clonal neoantigens, we have the potential to reduce the likelihood of immune escape by tumor cells, thereby enhancing long-term tumor control, while also reducing the potential for off-target toxicity. We utilize our bioinformatics platform, PELEUS, to identify clonal neoantigens in patients and combine these targets with our VELOS manufacturing process, which utilizes a physiological, antigen driven expansion process to create a functionally fitter T cell product. We believe the resulting cNeT product candidates can overcome many of the challenges faced by existing immunotherapies for the treatment of solid tumors.

The foundation of our approach is the PELEUS bioinformatics platform which is designed to identify each patient's tumor-specific clonal neoantigens by comparing DNA sequencing information from healthy tissue and tumor. PELEUS combines data from the TRACERx study with sophisticated proprietary statistical models to distinguish which mutations in a patient's tumor are clonal or subclonal. TRACERx is a study which aims to analyze tumor samples from more than 840 NSCLC patients, with 780 NSCLC patients enrolled to date and collected over 3,000 tumor region samples. We have exclusive commercial rights to the TRACERx database of multi-region samples from primary tumor and metastases and whole exome sequencing data for each individual patient for development of neoantigen-targeting cell therapies. The PELEUS algorithm is continuously updated, trained, and improved with this reference data that gives us what we believe is a unique approach to enable identification of clonal neoantigens.

To create our cNeT product candidates, we first procure tumor tissue and blood samples from the patient. We then extract, sequence and analyze the tumor DNA using PELEUS to identify the patient's unique clonal neoantigens. Using this information, we manufacture clonal neoantigen peptides, load them onto dendritic cells extracted from the patient's blood, and co-culture them with TILs extracted from the patient's tumor to activate and expand a subset of the T cells — we call this proprietary manufacturing process VELOS. This process creates a cNeT product candidate significantly enriched for T cells designed to recognize and specifically target multiple clonal neoantigens across all of the patient's tumor cells. We have designed and are continuing to develop an automated, fully-closed system for cell manufacturing, which we believe will be readily scalable for commercial supply and has the potential to overcome many of the manufacturing challenges associated with other cell therapies.

Our pipeline

We believe our cNeT is uniquely positioned to overcome the challenges faced by existing immunotherapies for the treatment of solid tumors. We have worldwide rights to our cNeT programs and are currently developing them for the treatment of the following solid tumor indications:

(1) Depending on the results of our Phase I/II monotherapy trials, we plan to engage with the FDA and EMA to discuss the addition of a Phase III registrational cohort in each study.

We are currently conducting a single arm Phase I/IIa, open-label, proof-of-concept trial in each of advanced NSCLC, referred to as CHIRON, and metastatic or recurrent melanoma, referred to as THETIS. We have prioritized the tumor types that we are seeking to address based on criteria we believe will maximize the potential of our programs to demonstrate a clinical benefit, including clonal neoantigen burden, TIL infiltration, tumor accessibility, as well as commercial factors such as high unmet medical need. Our Phase I/IIa trials will evaluate safety and tolerability of cNeT and assess clinical efficacy based primarily on the change from baseline in tumor size, response rate and duration of response. We expect to receive interim data from both clinical trials in the second half of 2022.

We believe the principles of tumor evolution to be common across many tumor types enabling our cNeT approach to be broadly applicable. As such, we have built up our MAP network to acquire and analyze tumor samples from multiple different indications to facilitate the development of follow-on indications for our cNeT, such as HNSCC, RCC, TNBC and bladder cancer. We expect to submit INDs for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.

Our team

Our management team has a strong track record of delivery including expertise in cancer immunology, oncology drug development, cell therapy process development, manufacturing and supply chain management. We are led by Dr. Iraj Ali, our Chief Executive Officer. Dr. Ali was formerly a Managing Partner of Syncona, where he served as an Investment Director at Nightstar Therapeutics (acquired by Biogen) and Blue Earth Diagnostics (acquired by Bracco Imaging), and was previously an Associate-Principal at McKinsey & Co. Our Chief Scientific Officer and co-founder is Professor Sergio Quezada, who is a recognized leader in the field of immune regulation and cancer immunology and was a founder of TUSK Therapeutics, an immuno-oncology company acquired by Roche. Our Chief Medical Officer and co-founder is Professor Karl Peggs, who was formerly a Professor of Transplant Science and Cancer Immunotherapy at University College London. Professor Peggs has significant experience in the clinical translation of T cell therapies and is the Director of the Cellular Immunotherapy Unit at University College London Hospitals NHS Trust, or UCLH. Our Scientific Advisory

Board also includes our other scientific founders, Professors Charles Swanton, and Mark Lowdell, who are leaders in the respective fields of tumor evolution, and cell manufacturing. We are backed by leading life sciences investors, including Forbion, Invus, OrbiMed, Perceptive Advisors, RA Capital, Redmile Group, Syncona and Boxer Capital of Tavistock Group.

Our strategy

Our goal is to become a fully integrated biopharmaceutical company focused on the development, manufacture and commercialization of cNeT for multiple solid tumor types. To achieve this, we are pursuing the following strategies:

- **Generate proof-of-concept clinical data for our cNeT approach in two lead solid tumor indications:** We initiated the CHIRON and THETIS Phase I/IIa clinical trials in advanced NSCLC and metastatic or recurrent melanoma respectively in 2019. To date, we have treated seven patients in these trials and we expect to report interim data in the second half of 2022. We expect to utilize initial data to gain insights into our cNeT therapy to inform the design of future trials of cNeT in other solid tumor settings.
- **Expand our cNeT platform into multiple additional solid tumors and earlier lines of therapy:** We believe clonal neoantigens represent optimal targets for the durable treatment of solid tumors. Our pioneering work in the identification and therapeutic targeting of these antigens gives us a strategic leadership position in advancing the field of cancer immunotherapy. We are leveraging our fundamental insights into the genetic evolution of tumors, combined with real-world data from multiple patient tumor samples obtained through our proprietary MAP network, to rapidly expand our pipeline into additional solid tumors. We expect to submit INDs for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.
- **Continuously develop and innovate our cNeT platform:** We believe our PELEUS bioinformatics platform gives us a unique ability to therapeutically target clonal neoantigens, and we continuously work to enhance and improve its predictive capabilities. Our approach is designed to enable a granular understanding of cell expansion and trafficking in each patient, which we plan to exploit to optimize the clinical potential of our cNeT platform. With this mechanistic understanding, we can direct our research and development efforts to refine our processes with the goal of delivering T cell product candidates optimized for functional fitness, anti-cancer activity and safety. We continuously evaluate complementary technologies to enhance cNeT activity *in vivo* and plan to explore alternative sources of T cells beyond tumor (e.g., blood) to initiate the manufacture of cNeT.
- **Build a scalable, automated manufacturing process:** We recognize the critical strategic importance of manufacturing to the success of the cNeT approach, and have learned from the challenges currently facing many other cancer cell therapies. We are designing our VELOS manufacturing process to be automated, fully-closed and robust with a competitive cost of goods. We continue to invest in improving manufacturing time, yield, and delivery of our product candidates to patients, and in expanding our manufacturing capacity to deliver on our ambitious clinical development and commercialization goals. Our current and planned manufacturing footprint in the U.K. is expected to be sufficient to meet our near-term clinical trial requirements. Our priority over the near-to-medium term is to expand this capacity into the U.S., with the goal of establishing a network of regional manufacturing sites globally. Our ultimate aim, if approved, is to be able to supply thousands of doses of commercial product annually.
- **Opportunistically collaborate with strategic partners to realize the full potential of our technology:** We intend to establish our own fully integrated internal capabilities to develop and commercialize our product candidates in Europe and the United States. In parallel, we plan to explore strategic collaborations with partners who bring complementary technical skills, experience and geographic reach to expand the scope of

our activities and accelerate our development timelines to maximize the full potential of our platform and realize the transformative therapeutic potential of cNeT therapies to address patients in need.

Tumor evolution and the immune system

The genetic basis of cancer

Cancers originate from mutations in the DNA of individual cells that promote uncontrolled proliferation, metastasis and evasion of the immune system. Tumors evolve in a Darwinian branched manner, whereby the mutations that are present in a cell before it becomes cancerous will be carried by all daughter cells of the growing cancer. These mutations are called clonal neoantigens, represented as the red “trunk” in the figure below. After the cell becomes cancerous, additional mutations may continue to arise in some cancer cells in response to genomic instability or environmental challenge. These additional mutations are called subclonal neoantigens – represented as the “branches” in the figure below. Clonal neoantigens are expressed in every tumor cell, while subclonal neoantigens are expressed by only a fraction of tumor cells. Since subclonal neoantigens are not present in all cancer cells, therapies that only target subclonal neoantigens only address a subset of the cancer cells and therefore allow the non-targeted cancer cells to continue to evolve and evade immune attack.

Depiction of Darwinian tumor evolution

Red = clonal neoantigens
Purple, Green and Orange = subclonal neoantigens

Cancer and the immune system

A key line of defense of the immune system’s response to tumors are T cells, which are white blood cells that mature mainly in the thymus. One of the primary functions of T cells is to detect and eliminate abnormal or “non-self” cells. T cells can be classified into two major subsets, CD4+ T “helper” cells and CD8+ T “effector” cells. CD8+ T cells can directly attack and kill cells that they recognize as abnormal or “non-self.” CD4+ T cells provide help to the immune response by secreting cytokines that enhance the activation, expansion, migration and effector functions of other types of immune cells in response to “non-self” cells. In addition, they can also directly kill tumor cells. Central and peripheral tolerance mechanisms prevent T cells from reacting to self-antigens, enabling them to differentiate between human leukocyte antigens, or HLA-peptide complexes that are “self” and those that are “foreign” or “non-self.”

When the DNA of tumor cells mutates, it results in the expression of “non-self” peptides. These peptides are then displayed on the cell surface as an HLA-peptide complex, which can be recognized and targeted by T cells, leading to subsequent destruction of the cell expressing them. Cancerous cells evolve as they divide and develop mechanisms to avoid the immune response. For example, tumor cells are able to activate immune checkpoint proteins on the surface of T cells that act to down-regulate the immune response to tumors. This

also results in the recruitment of immunosuppressive cells to the tumor microenvironment, or TME, production of immune-suppressive factors, and reduced antigen presenting capacity, which reduces the ability of T cells to recognize cancerous cells as foreign. As a result, endogenous tumor reactive T cells are present in insufficient quantities and with inadequate levels of activity against the tumor.

Overview of current therapies and their limitations

Immuno-oncology is an emerging field of cancer therapy that is designed to activate the immune system to enhance and/or create anti-cancer immune responses, as well as to overcome immunosuppressive mechanisms that cancer cells have developed. In the last decade, clinical trials have demonstrated the utility of the immune system in the fight against cancer, including some studies that have demonstrated impressive clinical responses against late-stage metastatic disease. Immuno-oncology therapies approved or in development include vaccines and checkpoint inhibitors, which are designed to re-activate the immune response to cancer, and genetically engineered immune cells, such as CAR-T and TCR-T therapies, which are designed to recognize and attack cancerous cells. While these existing immuno-oncology therapies have shown some impressive results in treating cancer, they each have limitations. An alternative approach, known as TIL therapy, aims to extract T cells from the patient's tumor, expand them outside the body and reinfuse the expanded cells back into the patient.

Checkpoint inhibitors: Immune checkpoints mediate peripheral tolerance by down-regulating T cell activity and have been targeted with CPI therapies to block their inhibitory function. Despite showing great potential in treating solid tumors, there are several shortcomings to CPIs. Most importantly, CPIs are designed to overcome the immunosuppressive TME by activating T cells regardless of their specificity, leaving their activity dependent on the presence of tumor reactive T cells. As a result, only a fraction of patients treated with CPIs respond to the therapy. Furthermore, they can promote systemic activation of self-reactive T cells, resulting in immune-related adverse events.

Adoptive cell therapies: Adoptive cell therapies, or ACTs, are based on the *in vitro* expansion of tumor-targeting T cells followed by their transfer into the patient. This process allows for the expansion of large numbers of T cells *ex vivo* away from the immunosuppressive nature of the TME. ACTs are primarily differentiated by the approach used to direct the T cells to target tumor cells and include:

- *CAR-T therapy*: T cells are genetically engineered to target a molecule expressed on the surface of a tumor cell, such as CD19, a molecule present on the surface of hematological cancers. CAR-Ts have demonstrated significant response rates in hematological cancers but remain of limited use in non-hematological cancers due to the lack of sufficiently specific surface targets, as most potential common solid tumor target candidates are also expressed by normal tissue, which increases the chances of serious off-tumor effects.
- *TCR-T therapy*: TCR-T cell therapies engineer T cells to target a selected tumor associated antigen, or TAA, in the context of the patient's own HLA molecules. TAAs are endogenous antigens that are expressed preferentially, but not exclusively, by tumor cells. The selected TAA can be expressed by normal tissue, which leads to a lack of specificity and off-target toxicity concerns. In addition, they are not uniformly expressed by tumor cells which leads to the potential for tumor escape. While there have been clinical successes in solid tumors, each TCR-T cell therapy can only be developed for a specific HLA type, limiting its applicability to the population of patients with that specific HLA type.
- *Standard TIL approaches*: In standard TIL approaches, T cells are extracted from a patient's tumor, activated, and expanded to large numbers before being reinfused into the patient. These therapies are limited due to the lack of control over the specificity of selected antigens, the fitness of the T cells manufactured, and toxicity profile, which is in part driven by the non-physiological doses of IL-2 required for

manufacturing and administration in the clinical setting. These limitations are compounded by a patient's pre-existing comorbidities.

Background on standard TIL therapy

In clinical trials, standard TIL therapy has demonstrated some of the most impressive results in treating solid tumors to date. These therapies have been observed to induce significant response rates as well as including some complete responses, or CRs, in clinical trials for melanoma, cervical carcinoma and NSCLC. Despite the clinical benefits provided by standard TIL therapy, we believe the technology has been limited by several factors, including:

- *Specificity and durability*—Standard TIL therapy does not have control over the specific reactivity of the T cells infused into a patient. In this therapy, all T cells within a patient's tumor sample are expanded and the resulting target specificity of the T cell therapy is not known or controlled. Such an expanded standard TIL product may include a mixture of bystander T cells that are unable to identify and target the tumor, and T cells that recognize nonclonal or subclonal neoantigens. We believe that this lack of control over T cell specificity, without specifically targeting clonal neoantigens, contributes to the observed lack of a durable response to standard TIL therapy in a proportion of patients.
- *T cell fitness*—Standard TIL expansion uses non-antigen specific methods to induce T cell proliferation, as well as non-physiological doses of IL-2 during the manufacturing process. These artificial methods for T cell expansion, coupled with chronic stimulation in the absence of dendritic cell-driven co-stimulation can lead to terminal differentiation and exhaustion of the T cell product. These exhausted or terminally differentiated T cells are considered less functionally fit to attack tumors due to their reduced capacity to proliferate and release cytokines *in vivo* after being dosed back into the patient.
- *Toxicity concerns*—The use of high levels of IL-2 in the standard TIL manufacturing process can lead to T cell dependence on IL-2 and the need to administer high dose IL-2 *in vivo* after the TILs are infused back into the patient in order to drive T cell survival. However, non-physiological levels of IL-2 have been associated with a range of toxicities in the clinical setting. Patients that have high tumor burden and comorbidities are more susceptible to the potential toxicity concerns associated with high levels of IL-2.
- *Manufacturing and scalability*—The manufacturing process for standard TIL therapy was developed in an academic setting and was not designed for commercial scale. These academic manufacturing processes lack automation and require human intervention at multiple steps, which increases manufacturing time and cost. Further, these systems are usually not fully closed end-to-end, which increases good manufacturing practice, or GMP, compliance costs, and were not designed to minimize cost of goods or redundancy in materials.

Our solution

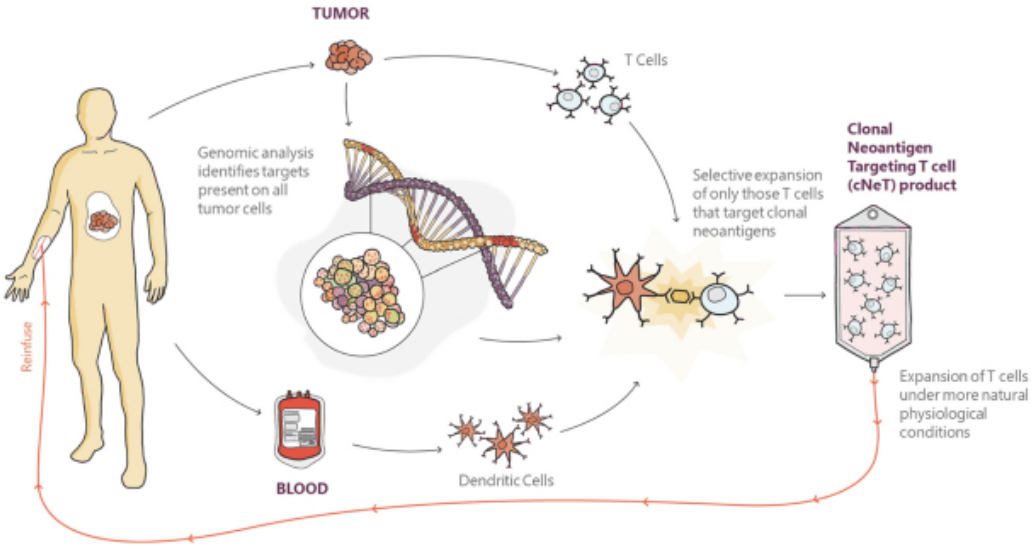
Our approach uses a precision TIL-based therapy to target what we believe to be the most specific tumor antigens, clonal neoantigens, in solid tumors. We believe that tumor clonal neoantigens represent optimal tumor targets because they are recognized by the immune system as foreign antigens and are absent in normal, healthy tissue but present in all of a patient's tumor cells.

We believe that our approach of selectively targeting clonal neoantigens to elicit a robust and durable clinical response is supported by third party studies. These studies have observed that neoantigens were relevant in producing anti-tumor activity, since patients with a high number of neoantigens showed improved progression free survival and overall survival when treated with CPIs and TIL therapies. Furthermore, clinical case studies have observed that adoptive transfer of neoantigen reactive T cells to cancer patients have shown impressive tumor control supporting the hypothesis that neoantigen-targeting T cells are the active component of TIL therapy. While these studies support the development of standard TIL therapies and other immuno-therapies

that target neoantigens, third party studies have further observed that clonal neoantigens contributed more than subclonal neoantigens to patient survival. In one study of treatment naïve lung cancer patients, it was observed that high numbers of clonal neoantigens in the tumors correlated with disease-free survival, while this relationship was not evident with subclonal neoantigens.

To address the limitations of current immuno-oncology approaches, we developed Clonal Neoantigen Targeting T cells, or cNeT. As outlined in the figure below, the first step of our process involves the procurement of tumor and blood samples from the patient. Once the tumor and blood are procured, we extract and sequence DNA. These sequencing data are fed into our PELEUS bioinformatic platform to identify the patient's unique clonal neoantigens. In parallel, we expand CD4+ and CD8+ T cells and generate dendritic cells from the tumor and blood, respectively. After PELEUS identifies the sequences of clonal neoantigens from the tumor genome, we manufacture clonal neoantigen peptides, load them onto dendritic cells and co-culture the dendritic cells with TILs to activate and expand a subset of the T cells. This process is designed to create a cNeT product candidate that is enriched with T cells designed to recognize and specifically target multiple clonal neoantigens in all of the patient's tumor cells. Our current VELOS process has an end-to-end time of approximately nine weeks, with a goal of further reducing the time to six to eight weeks.

Our cNeT approach



cNeT is designed to be:

- *Specific and durable*—We are able to design our cNeT is to specifically target multiple clonal neoantigens present in a patient's tumor. We believe this specificity for multiple targets will reduce the likelihood of tumor escape and increase the rates of durable complete response.
- *Functionally fit*—The use of dendritic cells to drive physiological, antigen-driven T cell expansion reduces the need for non-physiological IL-2 driven expansion and allows the production of fit T cell populations of CD4+ and CD8+ T cells capable of significant expansion and persistence in the patient. Our VELOS manufacturing process allows us to modulate the levels of IL-2 used in the manufacture and administration of our cNeT product candidates, which in turn allows us to tailor the treatment regimen and IL-2 usage to the patient's specific tumor burden and comorbidities to reduce toxicity concerns.

- *Well-tolerated*—Clonal neoantigens are absent from healthy tissue, which we believe minimizes the risk of off-tumor toxicity.
- *Designed to be cost effectively manufactured at scale*—The manufacturing process for cNeT has been designed, from its inception, to be compatible with industrialization and scalability while considering cost of goods. We have designed, and are developing, our manufacturing process to be fully-automated in a closed end-to-end system, in order to decrease cost and maximize yield.

Our approach also allows us to determine the dose of active cNeT cells in each patient's cNeT therapy. We use a flow cytometric assay to detect which T cells may be able to produce inflammatory cytokines in each patient in response to the clonal neoantigen peptides which allows us to calculate the fraction of cNeT present in the total CD3+ T cell dose, which are the cells involved in activating both CD8+ and CD4+ T cells. We believe this information will allow us to investigate potential relationships between cNeT dose, cNeT persistence and clinical response. We plan to use these correlations to further develop our understanding of the cellular mechanism of TIL therapy and support the design and the evaluation of next-generation processes for cNeT manufacture.

Our PELEUS bioinformatics platform – a unique, proprietary tool for identifying clonal neoantigens

PELEUS is a bioinformatics platform that is designed to identify each patient's tumor-specific neoantigens by comparing DNA sequencing information from healthy tissue and tumor. Furthermore, PELEUS uses statistical models to further distinguish which of these neoantigens are clonal and subclonal. After identifying the clonal neoantigens, PELEUS selects which of these are most likely to generate an immune response by leveraging data and know-how from the TRACERx study.

We have exclusive commercial access to data, for use in fields including neoantigen cell therapies, from TRACERx, which is a U.K. national study, funded by Cancer Research U.K., to collect NSCLC samples from patients at diagnosis and relapse. The program has been running for more than four years and has enrolled over 780 NSCLC patients to date and collected over 3,000 tumor region samples, with a target enrollment of more than 840 patients. TRACERx collects multi-region samples from primary tumor and metastases (where available) over multiple points in time, generating whole exome sequencing data for each sample to understand each patient's tumor genomic evolution in detail. By searching for the overlap of coding mutations across multiple tumor regions across hundreds of patients, we have used TRACERx to identify the fundamental features that define clonal neoantigens. Our PELEUS algorithm is based on this reference data and is continuously updated, trained and improved as additional patients are recruited to the study. While TRACERx is focused on patients with lung cancer, we believe the principles of tumor evolution utilized by PELEUS are broadly applicable across multiple tumor types. We are using our MAP network to expand the tumor database of PELEUS with additional samples from other tumor types. Our MAP network currently includes four medical sites in the U.K. and one in the U.S. We plan to continue to grow our network as we develop and advance our current and future cNeT programs.

PELEUS identifies clonal neoantigens for each individual patient in a multi-step process. First, tumor and blood samples are collected from the patient and sequenced, using whole exome sequencing and RNA sequencing. The genetic profile of the tumor is compared to that of healthy tissue using blood to identify mutations specific to the tumor. The resulting sequence information is then processed by PELEUS in a three-step process.

- **Step 1: *Identify tumor mutations***—PELEUS utilizes a state-of-the-art ensemble approach that combines multiple different algorithms to identify tumor-specific mutations. The sequencing data obtained from the tumor samples originates from a combination of tumor cells and healthy tissues that dilute the tumor signal. The challenge of identifying cancer-specific mutations is further compounded by sequencing errors, as well as non-cancer-specific mutations in the tissue surrounding the tumor. This creates a significant amount of "noise" in each data sample. The unique scale of the TRACERx data has allowed us to develop highly

sophisticated proprietary algorithms to improve the signal-to-noise ratio and allow us to reliably identify true cancer-specific mutations from real-world patient samples.

- **Step 2: *Identify clonal mutations***—PELEUS assesses the evidence for whether each mutation is present in all tumor cells in order to determine clonal versus subclonal status. This is achieved using a proprietary Bayesian statistical model which combines multiple lines of evidence.
- **Step 3: *Identify expressed mutations and predict immunogenicity***—PELEUS evaluates factors which influence the likelihood of each clonal neoantigen generating an immune response, such as neoantigen expression and predicted binding affinity. This enables us to prioritize clonal neoantigen targets for inclusion in our VELOS manufacturing process to selectively expand both CD4+ and CD8+ T cell reactivity.

Our VELOS manufacturing process

The viability of a personalized cell therapy product depends critically on manufacturing success and ability to scale sufficiently to address patient demand in a cost effective manner. Therefore, from inception, we have made it a core strategic priority to invest in optimizing and scaling manufacturing capacity.

The emergence of high throughput next generation DNA sequencing has enabled the rapid and cost-effective genetic characterization of tumor samples on a per patient basis. We leverage these advances, combined with our understanding of tumor evolution, to build upon the initial success of standard TIL therapy and deliver highly precise and functionally fitter T cells that are designed to target multiple clonal neoantigens.

Our VELOS manufacturing process has been designed from the outset to be suitable for scaled commercial use. This approach is in contrast to many other cell therapy processes in development today that have been transferred out of academia. Our process benefits from learnings over years of experience in ACT, and is designed for commercial use with a focus on GMP compliance and the use of closed systems.

Background and challenges of cell therapy manufacturing

Developing a reliable and robust manufacturing process for personalized cell therapies that can ensure adequate product safety, potency, and consistency at an economically viable cost of goods has been one of the most significant challenges in the field of cell and gene therapy. Key challenges include:

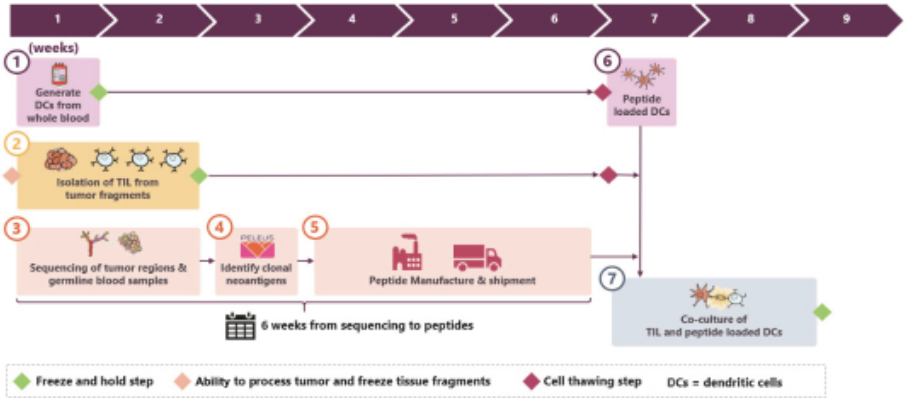
- **Academic manufacturing processes—**Historically, cell therapy manufacturing processes have been developed in academic institutions for early stage clinical trials treating a small number of patients. These are often open processes that require the highest-grade cleanroom environment to protect from contamination. Operating and facility costs to maintain these manufacturing environments are substantial, require a large footprint and high numbers of staff.
- **Manual processing leads to challenges at commercial scale—**Traditional academic approaches to cell therapy manufacturing have been both time consuming and labor intensive due to the high number of operator-dependent manual processes involved. Reverse engineering these academic processes to be suitable for late phase clinical trials and commercialization is both time consuming and cost intensive, introduces risk to overall development timelines, and challenges in maintaining product characteristics.
- **Human clinical trial material is variable**—Patient-to-patient variability in clinical trial material is inherent in autologous therapies. Validation of manufacturing processes are often performed with surrogate healthy volunteer donor material or cell lines due to lack of commercially available patient material.
- **Supply chain and logistics are complex and time consuming**—The shipment of tumor and blood samples direct from surgery to manufacturing hubs requires a complex temperature controlled and sterile supply chain network to maintain cell and tissue viability.

Our manufacturing solution

We have invested in our manufacturing process from the outset with the goal of producing our cNeT at a commercial scale, which we believe will allow us to address the challenges faced by traditional methods of cell therapy manufacture. Our approach is to design a fully closed, end-to-end manufacturing system with integrated automation. We believe this will enable lower operating costs by reducing the number of labor-intensive manual operator steps and eliminate the requirement for the higher-grade manufacturing environment needed for open processing. We believe that this approach is essential for industrial scale-up, as it drives a reduction in process variability between operators, minimizes failure rates, and improves reproducibility. Our approach has been to invest in developing new technology, both in-house and with partners, to deliver an automated and standardized platform that permits rapid scale out while controlling commercial cost of goods. Our proprietary process benefits from the deep experience of our management team and founders in the field of ACT, combined with a core focus on GMP compliance and the use of closed systems.

Key steps in our VELOS process

Our current VELOS manufacturing process



The key steps in our manufacturing process include:

1. Generation of dendritic cells from whole blood—Monocytes are isolated from the patient's whole blood using a process of immunomagnetic selection and subsequently differentiated into dendritic cells in culture. The harvested dendritic cells are then cryopreserved for later use.

2. Isolation of TIL from tumor—Tumor samples are cleaned, dissected into small fragments, and placed into culture with cytokines. TILs are isolated from the fragments, harvested, and cryopreserved for later use.

3. Sequencing of tumor regions—Following dissection of the patient's tumor sample, multiple fragments are selected and sent for DNA and RNA sequencing.

4. Selection of clonal neoantigens—DNA and RNA sequencing data from each patient are analyzed by PELEUS to identify a unique set of clonal neoantigens.

5. Manufacture of patient specific peptides—Each patient's clonal neoantigens are used to manufacture a personalized set of clonal neoantigen peptides.

6. Peptide loading of dendritic cells—Following receipt of the clonal neoantigen peptides, the patient's dendritic cells are removed from storage, thawed and put back into cell culture and loaded with the peptides.

7. Co-culture of TIL and peptide-loaded dendritic cells—The thawed TIL intermediate is co-cultured with the dendritic cells that have been loaded with the patient's clonal neoantigen peptides. The co-culture step results in the selective expansion and enrichment of cNeT, prior to final formulation and cryopreservation to enable flexibility for shipping to clinical sites as required for patient treatment.

The process outlined in the figure above is our first-generation process with an end-to-end time of approximately nine weeks. We are continuously improving our process with the goal of decreasing end-to-end time to six to eight weeks. Our manufacturing success rate across both CHIRON and THETIS trials as of December 14, 2020 was 73% in the last 15 patients and 46% across all 28 patients. This improvement has been driven by optimization of the end-to-end process. The cryopreservation of tumor, TIL, dendritic cell intermediates and cNeT enables flexibility for global supply of drug product designed to meet the clinical needs of patients. We are developing new generations of our VELOS process to enable us to provide higher doses of our cNeT.

Our pipeline

We believe our cNeT technology is uniquely positioned to overcome many of the challenges faced by existing therapies for solid tumors. We have prioritized the tumor types that we are seeking to address based on criteria that we believe will maximize the potential of our programs to demonstrate a clinical benefit, including expected clonal neoantigen burden, TIL infiltration and tumor accessibility, as well as high unmet medical need and future commercial potential.

Our pipeline is illustrated in the chart below:

(1) Depending on the results of our Phase I/II monotherapy trials, we plan to engage with the FDA and EMA to discuss the addition of a Phase III registrational cohort in each study.

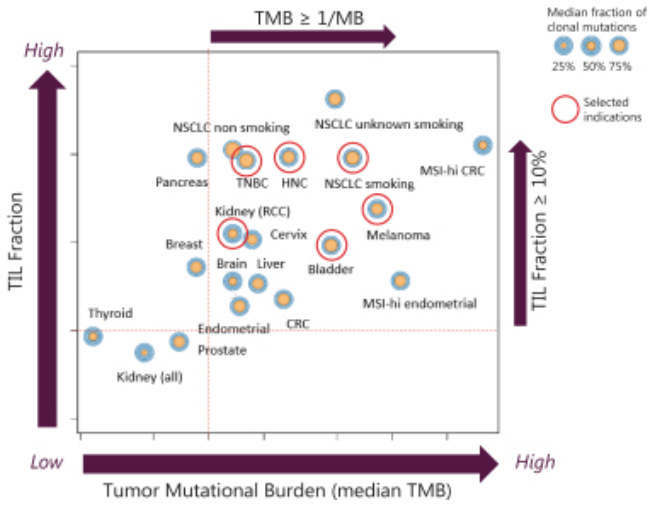
We are currently conducting two open-label Phase I/IIa trials, CHIRON and THETIS, to evaluate our cNeT programs in advanced NSCLC and metastatic or recurrent melanoma, respectively. We expect to receive interim data from both clinical trials in the second half of 2022. We intend to develop follow-on indications for our cNeT, such as for HNSCC, RCC, TNBC and bladder cancer. We expect to submit INDs for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022.

We have identified these initial tumor indications using the following criteria:

- **Tumor mutational burden—**Tumor mutational burden is a measure of the number of mutations in the coding region of tumor DNA as compared to healthy tissue DNA. This mutational burden will generally increase over time as new mutations accumulate through exposure to environmental carcinogens (e.g., smoking, sunlight) and this is also generally associated with an increase in neoantigen and clonal neoantigen frequency. These clonal neoantigens are the target for our cNeT product candidates.
- **The extent of T cell infiltration into the tumor**—Tumors will typically be targeted and infiltrated by varying numbers of T cells that are able to recognize tumor neoantigens. We have prioritized tumors that typically demonstrate high levels of T cell infiltration for our initial indications since tumor infiltrating T cells are the starting material for our cNeT.
- **The accessibility of tumor tissue**—In order to extract the tumor infiltrating T cells that are required as our starting material, the ability to safely procure adequate primary or metastatic tumor tissue through a surgical procedure is critical for manufacture. We have therefore prioritized indications where tumors are typically present in sufficient volumes and in locations that can be readily accessed to extract the tumor sample without compromising its quality.
- **Unmet need and commercial opportunity**—In order to maximize the beneficial impact for cancer patients, we have sought to address indications with the highest addressable market potential, as defined by various factors including unmet medical need, typical co-morbidities and outcomes with current and likely future treatment options.

The figure below compares the amount of T cell infiltration into a tumor and the corresponding tumor mutational burden for various cancer types. The area shaded orange in each circle reflects the median fraction of clonal mutations for that tumor type. As depicted below, the indications we are targeting in both our lead and follow-on indications typically have high levels of tumor mutational burden, clonal mutational burden and TIL infiltration as compared to other solid tumors.

Tumor mutational burden and immune infiltratin across different cancers



Our programs

cNeT (ATL001) for non-small cell lung cancer and melanoma

Our lead cNeT programs (product candidate ATL001) are currently in two ongoing Phase I/IIa clinical trials for the treatment of advanced NSCLC and metastatic or recurrent melanoma. Our Phase I/IIa clinical trials will evaluate safety and tolerability of these programs as a monotherapy with the option for investigation of cNeT in combination with a PD-1 inhibitor. The trials will also evaluate, among other measures, change from baseline in tumor size, response rate and duration of response. We expect to receive interim data from both clinical trials in the second half of 2022.

Non-small cell lung cancer

Lung cancer remains the most common cause of cancer related death worldwide, with 230,000 new cases and 134,000 deaths annually in the U.S. Almost all cases are caused by smoking and patients are most often diagnosed with advanced invasive or metastatic disease, which is incurable despite current combination regimens utilizing chemotherapy and immune checkpoint inhibitors. Most patients experience disease progression within a year of starting treatment and there are currently no effective standard treatments for these patients.

Melanoma

In the U.S., 100,000 patients are diagnosed with melanoma annually and there are 7,000 melanoma-related deaths each year. The incidence of melanoma continues to rise and we believe that there remains a substantial unmet need for patients with metastatic or recurrent melanoma who become resistant to check-point inhibitors, as there are no effective treatment options available to these patients.

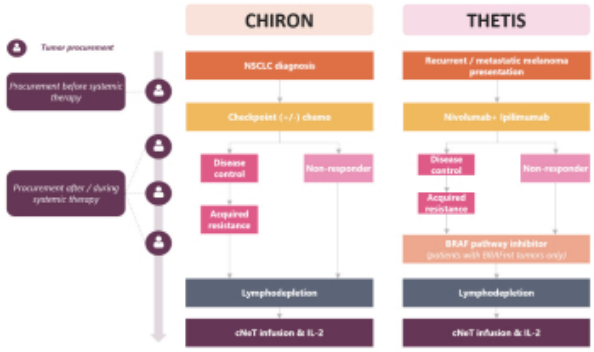
Clinical trial designs for NSCLC and melanoma

We are currently conducting two single arm, open-label, proof-of-concept clinical trials in advanced NSCLC and metastatic or recurrent melanoma:

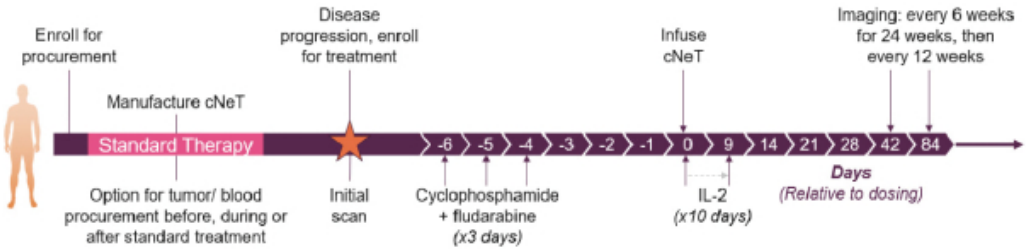
- **CHIRON**—a Phase I/IIa clinical trial to evaluate the safety, tolerability and clinical activity of cNeT in up to 60 patients with advanced NSCLC, ongoing at six U.K. sites. Our IND was accepted by the FDA in December 2019 and we plan on expanding our trial in up to five U.S. sites and up to eight European sites in 2021.
- **THETIS—**a Phase I/IIa clinical trial to evaluate the safety, tolerability and clinical activity of cNeT in up to 60 patients with metastatic or recurrent melanoma. We are currently conducting this trial at three U.K. sites and submitted an IND to the FDA in November 2020 to enable expansion to U.S. sites in 2022. Further trial applications in the European Union are planned for 2021.

As the first step in each of these trials, enrolled patients undergo procurement of tumor and blood samples to allow genetic characterization of the tumor and manufacture of the cNeT product candidate. Tissue procurement can occur prior to, during and after completion of standard systemic therapy, as depicted in the diagrams below. During the period between tissue procurement and final cNeT manufacture, patients can continue to be treated with standard of care therapy for their specific cancer. Once manufacture of the patient's specific cNeT is complete, it can be cryopreserved until required for administration.

cNeT treatment paradigm



The trial design of CHIRON and THETIS is illustrated below:



Our dosing regimen is based on experience across dosing of standard TIL, genetically modified T cell therapies and both anti-viral and anti-cancer therapies generated using dendritic cell co-culture systems. Compared to standard TIL therapy, we use lower doses of cyclophosphamide and IL-2, which we believe will be better tolerated in advanced NSCLC and metastatic or recurrent melanoma patients with co-morbidities. The ongoing Phase I/IIa clinical trials do not use a standard dose escalation design since, as a personalized cell therapy product, cNeT yields will vary from patient to patient. Instead, the maximum number of cNeT manufactured will be administered to each patient, within a 100-fold dose range of 1×10^7 – 1×10^9 total T cells.

Patients in both trials receive a non-myeloablative lymphodepleting regimen of cyclophosphamide (300mg/m^2/day) and fludarabine (30mg/m^2/day), after which they receive their dose of cNeT, followed by ten daily subcutaneous injections of IL-2. Patients receive scans to assess tumor size every six weeks for the first six months, followed by scans every three months for the duration of the trial.

The primary endpoint of both trials is safety and tolerability. The secondary endpoints include change in tumor size from baseline, overall survival and objective response rate, disease control rate, time to response and progression-free survival based on RECIST criteria. Depending on the results of our Phase I/II monotherapy trials, we plan to engage with the FDA and EMA to discuss the addition of a Phase III registrational cohort in each study. If we advance ATL001 for NSCLC or metastatic or recurrent melanoma in combination with a PD-1 inhibitor, we expect to conduct additional Phase II clinical trials before advancing to a Phase III registrational trial. Other exploratory translational science analyses will aid interpretation of the observed clinical data, addressing such questions as how dose, phenotype, functionality and engraftment kinetics may affect clinical outcomes.

Clinical data for NSCLC and melanoma

As of January 20, 2021, we have analyzed initial data from the first six patients in the CHIRON and THETIS clinical trials, three patients with NSCLC and three with melanoma. Patients had received a median of 2.5 lines of therapy prior to receiving cNeT. All had progressive disease at the time of lymphodepletion prior to cNeT infusion and each patient has completed their first scheduled scan six weeks post-cNeT infusion to assess tumor size. The six patients received a median dose of 15 x 10^6 cNeT, which is at the low end of our prospectively targeted therapeutic dose range of 10 x 10^6 – 500 x 10^6 cNeT. Data from these six patients has demonstrated a favorable cNeT tolerability profile, and provided encouraging initial evidence of cNeT engraftment. Based on observations from these data, we plan to increase the administered cNeT doses in our next series of monotherapy patients.

cNeT tolerability

Overall, the tolerability profile of cNeTs was observed to be similar to that of standard TIL products that have not been enriched for cNeT reactivities, with the lymphodepletion regimen accounting for most of the observed higher-grade adverse events, being neutropenia, and febrile neutropenia/neutropenic sepsis. We observed no grade 3 or 4 toxicities reported as causally related to IL-2. We observed two serious adverse events, or SAEs, that were deemed related or possibly related to ATL001. The first was an instance of immune effector cell-associated neurotoxicity syndrome, or ICANS. The event was also deemed potentially related to IL-2. The patient was treated with dexamethasone and tocilizumab and their acute condition improved. The patient, however, subsequently died due to progression of the underlying cancer. The second SAE presented as a non-specific encephalopathy (grade 1), which led to hospitalization. The episode of encephalopathy responded to corticosteroids and the patient was discharged from the hospital. Two additional patients subsequently died due to progression of the underlying cancer. On January 4, 2021 a formal review of safety was conducted by an Independent Data and Safety Monitoring Committee, or IDSMC, to review the data from these first six patients. The IDSMC recommended that the two clinical trials should continue as planned with no required modifications. After the patient experiencing the second SAE (non-specific encephalopathy) was discharged from the hospital, the SAE persisted with recurrence of symptoms on attempted withdrawal of steroids and parallel evidence of disease progression. Neurological symptoms worsened 109 days after administration of cNeT. The event was deemed a possible ICANS event. The patient also continued to experience disease progression and was ultimately put on end of life care and medical treatment was ceased, with the ICANS (grade 5) remaining unresolved at the time of death. We had observed low and transient levels of engraftment of cNET in this patient, with neoantigen-reactive T cells below baseline by 6 weeks following infusion. On March 15, 2021, we met with the IDSMC. The unanimous view of the committee was that it was unlikely that the neurotoxicity was caused by ATL001 based on the small number of cells infused, the limited early engraftment, the late progression of the neurotoxicity beyond the time that engraftment was no longer detected, and the lack of preferential expression of any of the cNeT target antigens in the brain, which is commonly observed when CAR-T therapies are associated with ICANS. They recommended we continue enrollment on both trials and also recommended we submit additional confirmatory data prior to dosing the next patient. Subsequent to this recommendation, we completed an analysis that confirmed that the presence of neoantigen-reactive T cells at day 109 after infusion was below that at baseline, which further supports the assessment that the SAE is unlikely to have been associated with ATL001. We have submitted this data to the IDSMC. We are also planning on completing an autopsy and submitting the results of that to the IDSMC, in advance our next scheduled patient dosing. On March 16, 2021, we submitted a notice of Suspected Unexpected Serious Adverse Reaction with the FDA and MHRA. In light of the data generated to date and the feedback from the IDSMC, we do not expect any delays in the timing of our trials as a result of this event.

cNeT activity

We observed stable disease at six-weeks post-dosing in four out of the six patients and progressive disease in two patients. One patient had a reduction in the size of two of their four tumor lesions by approximately 55% and 90%. Engraftment data for our cNeT are currently available from six patients, with evidence of engraftment being observed in three patients, and the highest engraftment observed in the patient who received the highest cNeT dose. It has been observed in prior studies of CAR-T cell therapies that engraftment and expansion of tumor-reactive T cells post infusion is correlated to clinical response. This correlation has not been evaluable with prior TIL therapies due to the lack of routine characterization of the active component of the infused cells, and the associated inability to track the active component post dosing. Since we characterize our cell product candidates at the level of individual cNeT reactivities, we are able to determine engraftment, peak expansion, and durability of persistence of clonal neoantigen-reactive T cells. We will continue to assess these features with clinical outcomes in subsequent patients that we plan to treat with higher cNeT doses. An additional benefit of our detailed product characterization is the ability to demonstrate the polyclonality of both the infused product and the engrafted cells. We have identified between two and 28 unique clonal neoantigen reactivities in individual patient cNeT product candidates in both our clinical trials and in the analysis of MAP samples, and have demonstrated the presence of the same polyclonal cNeT reactivities following infusion in both patients in whom engraftment was observed.

Next steps

Based on these initial results from the CHIRON and THETIS clinical trials, we are planning to submit the necessary regulatory filings to use a modified manufacturing process incorporating additional cytokines that we believe will yield higher cNeT doses. We expect to begin enrollment of patients for the higher cNeT dose process in the second half of 2021 and commence dosing in the first half of 2022. We expect interim data from up to ten patients dosed at these higher dose levels in the second half of 2022. In addition, we have received regulatory approval to open a combination cohort in the THETIS trial evaluating the addition of nivolumab (a PD-1 inhibitor) following cNeT infusion, and expect to begin patient enrollment in the second half of 2021 with interim topline data from at least six patients expected in the second half of 2022.

Follow-on indications

In addition to our two primary indications in advanced NSCLC and metastatic or recurrent melanoma, we are pursuing follow-on indications in patients with advanced HNSCC, RCC, TNBC and bladder cancer. Each of these indications are characterized by a high tumor and clonal mutational burden, high T cell infiltration into the tumor, readily accessible tumors, and high unmet medical need, which makes them attractive targets for our cNeT programs.

We expect that the trial designs, treatment and dosing regimen used to evaluate these follow-on indications to be similar to our CHIRON and THETIS trials. As with NSCLC and melanoma, we expect that these follow-on programs will allow for tumor procurement before or during the first line of systemic therapy for advanced disease, with cNeT manufacture during the treatment phase and delivery of the product upon disease progression.

We expect to submit INDs for our earlier stage programs in the second half of 2021 and in the second half of 2023. We expect these INDs to be for our HNSCC and RCC programs, with HNSCC expected to be the lead program and to commence a clinical trial in the second half of 2022. Following these, we plan to file INDs for TNBC and bladder cancer.

Head and neck squamous cell carcinoma

In the U.S., there are over 65,500 new cases of HNSCC diagnosed and 14,500 deaths annually, with most cases being smoking related. The tumor mutational burden of HNSCC is similar to that of NSCLC, and it is typically an

immunogenic tumor that is generally responsive to treatment with checkpoint inhibitors. As such, we believe that our cNeT therapy can be used to drive a robust anti-tumor response in this disease. Disease recurrence is very common and in this incurable setting, the first-line treatment consists of chemotherapy and checkpoint inhibitors. Following failure of first line therapy, approximately six months after starting treatment, there are few treatment options remaining.

Renal cell carcinoma

In the U.S., there are approximately 74,000 new cases and almost 15,000 deaths from RCC each year. RCC is a promising indication for a cNeT product as tumors have a very high TIL infiltration and a high proportion of the tumor mutational load consists of mutations which are likely to lead to the generation of neoantigens. Despite recent advances in using immune checkpoint inhibitors in combination with a range of tyrosine kinase inhibitors as first line therapies, there still remains significant unmet need with few available treatment options for patients who progress from first-line therapies.

Triple negative breast cancer

In 2020, there were over 280,000 diagnoses of invasive breast cancer in the U.S., of which approximately 11% are TNBC. TNBC is most often diagnosed in younger patients and is a more aggressive form of breast cancer with lower survival rates than other types of breast cancer. The high tumor mutational burden and TIL infiltration make it an attractive target for a cNeT therapy. In the metastatic setting, the PD-L1 inhibitor atezolizumab in combination with nab-paclitaxel is becoming an established first line standard of care, after which there are very few effective treatment options.

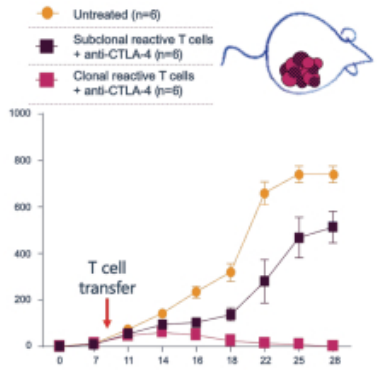
Bladder cancer

In the U.S., there are over 81,000 new cases and 18,000 deaths from bladder cancer each year. Bladder cancer has a similar clonal mutational burden to NSCLC and is responsive to CPIs. After decades with few new approved treatments for advanced bladder cancer, five CPIs have been approved since 2016. Originally approved in the second line treatment setting, they have now moved to the first line maintenance setting, leaving few treatment options following disease recurrence.

Our preclinical studies supporting the specificity and fitness of our cNeT product candidates

To evaluate whether T cells targeting clonal neoantigens could generate a more complete and durable response than T cells targeting subclonal neoantigens, we used a melanoma mouse tumor model containing clonal and subclonal neoantigens. After tumor growth was visible, the mice were either left untreated or treated with T cells targeting the clonal or the subclonal neoantigen. We observed that the transfer of T cells targeting a subclonal neoantigen resulted in partial control of, or delayed, tumor growth with eventual relapse and tumor growth in all treated mice. In contrast, we observed that mice treated with T cells targeting a clonal neoantigen experienced a complete and durable response through to the completion of the study at day 28.

Clonal neoantigen targeting T cell therapies led to durable complete responses in mouse models of cancer



Our goal is to deliver a cNeT product candidate with greater specificity to clonal neoantigens as well as higher functional T cell fitness as compared to standard TIL, in order to maximize tumor control. We have compared the specificity of standard TILs with cNeT derived from the same patient, and demonstrated the potential of cNeT to better recognize and target clonal neoantigens compared to CD8+ and CD4+ T cells generated with the standard TIL. We observed that more than 80% of cNeT recognized the clonal neoantigens from the patient's tumor while less than 30% of CD8+ TILs recognized those same antigens. Importantly, approximately 60% of the CD4+ cNeT recognized clonal neoantigens while none of the standard TIL CD4+ T cells recognized these same clonal neoantigens. We believe these data support the potential of our process to generate a product candidate that is enriched for CD8+ and CD4+ T cells that recognize clonal neoantigens as compared to standard TIL.

cNeT process delivered higher clonal reactivity than standard TIL therapy

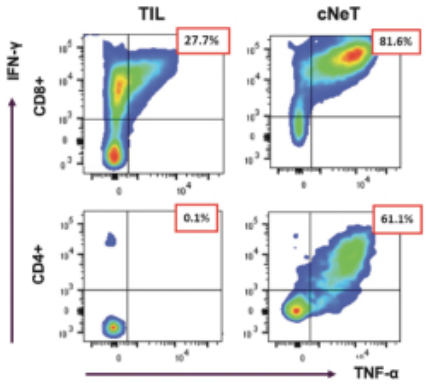


Figure A

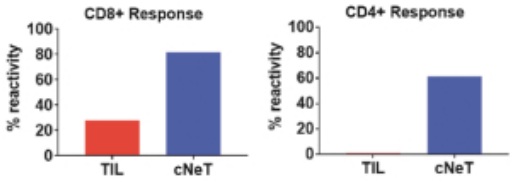


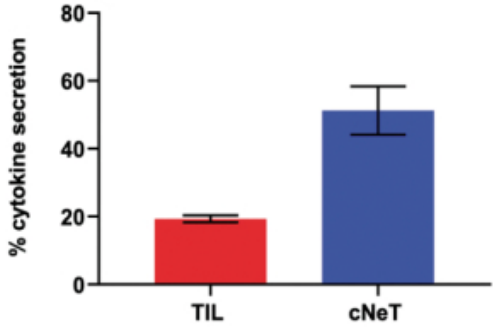
Figure B

Figure A is a flow cytometric analysis depicting the ability of cNeT to produce IFN-g and TNF-a, which are accepted T cell activation markers. Figure B represents the percentage of IFN-g and TNF-a produced by CD8+ and CD4+ T cells.

Separately, we assessed T cell fitness using T cell receptor independent polyclonal stimulation of the cNeT and standard expanded TIL product candidate. By stimulating T cells with anti-CD3, all the T cells in the assay were tested for their maximal capacity to produce effector cytokines, regardless of their reactivity. This assay is widely used by academics and industry to test overall activity of T cells.

The data below depicts the potential of cNeT to outperform standard TIL cells in the production of effector cytokines, which we believe support improved fitness of our cNeT.

cNeT produced higher amounts of effector cytokines than standard TILs



Material acquisition platform

Our Material Acquisition Platform, or MAP, network is our proprietary network for collection of donor tumor tissue and blood from cancer patients. We created, and are continuing to grow, our MAP network as a strategic asset to secure continued access to patient tumor and blood samples which are procured from patients undergoing standard-of-care cancer surgery across multiple solid tumor indications. The samples accessed through our MAP network are used in the development of our VELOS process and the expansion of the PELEUS database. In addition, our MAP network provides access to patient samples from multiple additional tumor types that can inform the basis of our future pipeline development Our MAP network also acts to improve our supply chain operations with respect to interventional studies, by identifying and building non-standard site pathways for patient access and transportation pathways from procurement centers to our manufacturing facilities and back to patients.

Our network of MAP sites also provides an opportunity to procure and archive cancer samples from patients earlier in their treatment pathway, for example when surgery is undertaken for curative treatment in patients determined to be at high risk of future relapse. Archived tumor samples and TIL intermediates have the potential to be partially processed and then stored until the patient experiences disease progression, at which point cNeT manufacture could be completed and the final therapy supplied. This potentially provides an additional pathway to shorten the effective supply time of our cNeT in the event of a patient's disease progression, and would offer patients a more rapidly available, customized treatment option. Furthermore, by procuring tumor samples earlier in the patient treatment pathway and prior to exposure to multiple lines of therapy, we believe these samples have the potential to yield T cells of both higher fitness and quantity. The ability to collect tumor samples earlier in the treatment paradigm also allows us to explore the potential for cNeT in earlier lines of therapy in future.

To date, our MAP network has delivered more than 70 samples from four U.K. centers and one U.S. center in NSCLC, melanoma and HNSCC. We intend to incorporate additional U.K. centers into our MAP network to access material from bladder and RCC patients. This material will be used to enable potential Clinical Trial Application and IND filings for these indications.

Our current manufacturing capacity and expansion plans

Recognizing the strategic importance of manufacturing to the development and commercial success of our personalized cell therapy approach, we continue to take steps to scale-up and expand our capabilities in this regard.

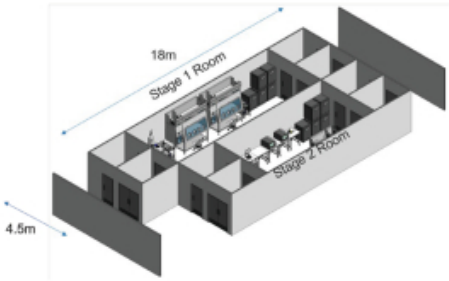
We have secured dedicated manufacturing capacity to support our clinical trials at two UK sites: The Royal Free Hospital and the Cell and Gene Therapy Catapult. The Royal Free Hospital (Centre for Cell, Gene and Tissue Therapeutics) is an MHRA-licensed facility for the manufacture of investigational medicinal products and holds a Human Tissue Authority license for the import and storage of cells and tissues. The manufacturing agreement provides services that include quality management systems, qualified persons for product release, quality control labs and GMP storage. In September 2020, we entered into agreements with UCL for office and lab space on the Royal Free Campus to support both GMP development and translational science operations.

We expect to expand our cell therapy dose capacity in 2021 at the Cell and Gene Therapy Catapult Manufacturing Centre in Stevenage. As such, in March 2020, we entered into a collaboration agreement with Cell Therapy Catapult Limited, or Catapult, pursuant to which we lease a manufacturing space from Catapult and pay Catapult to help us design, construct and operate a GMP manufacturing facility.

Additionally, we lease a warehouse in west London, where we will construct a flexible GMP modular facility to scale our manufacturing footprint where pod cleanrooms can be brought online in a phased approach. We expect the fully controlled facility to support in-house capability for peptide manufacture and supply that we believe will reduce cost of goods and shorten manufacturing times. The modular facility is intended to support our registration trials, commercial supply for Europe and provide the optionality to support U.S. operations. Over time, we will establish further regional manufacturing facilities.

Through the continued strategic expansion of our manufacturing footprint across multiple sites, we plan to scale up capacity from 50 cNeT doses per year in 2020 to 1,250 doses per year by 2025 to supply our clinical trials through to registration of our lead programs. Our ultimate aim is to be able to supply thousands of doses of commercial product annually.

Modular cleanroom pod



A strategy that adopts a modular cleanroom pod approach enables maximum flexibility for GMP modules to be added at speed to support additional dose capacity.

Future strategy for automation

Automation will enable improvements to our manufacturing success rate, a reduction in operator dependencies and related costs and will support the industrial scale-up of GMP operations. Additionally, the custom devices that support a fully-closed process, while further reducing high operating costs associated with open processes, enable the potential for new intellectual property and security of the manufacturing process and know-how. We have developed a roadmap for automation by focusing on several key areas across the end-to-end manufacturing process to drive the future commercial delivery of cNeT. Some of the key initiatives in our automation strategy include:

- **Tumor collection and processing device:** We are developing a closed system to process patient tumor samples. This system is designed to be utilized for procurement of the tumor sample at the time of surgery and delivered to the manufacturing site. We believe this will increase sample throughput and minimize operator variability, while decreasing the time required to process samples. Additionally, this closed system approach allows manufacturing in a simpler and lower cost cleanroom environment.
- **Automation for co-culture:** We are evaluating different fully closed bioreactor systems to be used in the industrial manufacturing process of our cNeT. These bioreactors will enable us to reduce costs through higher output and fewer manual operations. Our goal is to utilize these bioreactors to increase cell yield through optimized cell feeding methods enabled through real time monitoring of cell cultures.

We have entered into and are evaluating several strategic partnerships to support the development of automation and devices to deliver an industrial manufacturing process.

Translational science program

We believe that by prospectively targeting identified clonal neoantigens, we have a unique opportunity to more fully characterize cNeT at the product and single cell level, providing a detailed understanding of their kinetics and function in patients and potential association to clinical responses. We have built a Translational Science Program, or TSP, that is run in parallel with our clinical studies and is designed to allow us to better understand specific features of our cNeT and their mechanism of action.

We collect samples to analyze each patient's TME prior to cNeT manufacturing, as well as the manufactured cNeT including dose, number of reactivities, immune phenotype and specific T cell receptor sequences. Upon administration into the patient, we will track cNeT engraftment, expansion, phenotype, activity and transcriptional profile. In parallel to tracking cNeT, we will also evaluate circulating tumor DNA as a liquid biomarker of tumor burden.

The increasingly detailed molecular understanding of cNeT and their mechanism of action in patients will further inform and control the development of next generations of our VELOS manufacturing process by focusing on functional fitness, anti-cancer activity and safety as well as alternative starting material for cNeT manufacture (e.g., blood). By using blood as a starting material, we aim to provide patient optionality and broaden patient access and supply for those patients where tumor collection by surgery may not always be possible.

Commercialization

At our current stage of development, we have not yet established a commercial organization or distribution capabilities. We are developing our clinical-stage programs for the treatment of patients with late-stage solid

tumors, most of whom are treated in specialized treatment centers or hospitals. We aim to use selected centers to pilot and establish systems necessary for product delivery by the time of launch. By focusing on these centers, we can begin to build our commercialization capabilities with limited resources.

We have worldwide commercial rights for our potential products. We currently plan to build our global commercialization capabilities internally over time such that we are able to commercialize any product candidate for which we may obtain regulatory approval. We may selectively pursue strategic collaborations with third parties in order to maximize the commercial potential of our product candidates. We generally expect to launch any of our products that receive regulatory approval in the United States first, followed by the European Union, and then in other major markets.

Competition

There is significant investment across the biotechnology and pharmaceutical industries in developing novel and proprietary therapies for the treatment of cancer. While we believe that our differentiated, precision and scientific expertise in the field of cancer immunotherapy provide us with competitive advantages, we face potential competition from various sources, including larger and better-funded pharmaceutical, specialty pharmaceutical and biotechnology companies, as well as from academic institutions, governmental agencies and public and private research institutions. We anticipate that we will face intense and increasing competition as new drugs and therapies enter the market and advanced technologies become available.

Advanced T cell therapies are under evaluation in solid tumors by multiple biotechnology and pharmaceutical companies, including Kite Pharma Inc. (a Gilead company), Iovance Biotherapeutics Inc., Adaptimmune Therapeutics PLC, Instil Bio, Inc., PACT Pharma, Inc., Neogene Therapeutics, Inc. and BioNTech SE. In particular, Iovance is developing a TIL therapy for melanoma, which will compete directly with cNeT in this indication.

Other privately held biotechnology companies are evaluating neoantigen directed T cell approaches.

We cannot predict whether new types of immunotherapies including novel checkpoint inhibitors may be enhanced and show greater efficacy, and we may have direct and substantial competition from such immunotherapies in the future. In addition, more effective small molecules, cancer vaccines and other approaches may be developed and used as first line or second line treatments, which would reduce the opportunity for our T cell therapies.

Many of our competitors, either alone or with their strategic collaborators, have substantially greater financial, technical and human resources than we do. Accordingly, our competitors may be more successful than we are in obtaining approval for treatments and achieving widespread market acceptance and may render our treatments obsolete or non-competitive. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical study sites and patient registration for clinical studies, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

We anticipate that we will face intense and increasing competition as new products and therapies enter the market and advanced technologies become available. We expect any treatments that we develop and commercialize to compete on the basis of, among other things, efficacy, safety, delivery, price and the availability of reimbursement from government and other third-party payers.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less

expensive or better reimbursed than any products that we may commercialize. 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 for either their product or a specific indication before we are able to enter the market.

Intellectual property

Our success depends, in part, on our ability to obtain and maintain intellectual property protection for our product candidates, technology and know-how, to defend and enforce our intellectual property rights, in particular, our patent rights, to preserve the confidentiality of our know-how and trade secrets, and to operate without infringing the proprietary rights of others. We seek to protect our product candidates and technologies by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development of our business. We also rely on trade secrets, know-how, continuing technological innovation and in-licensing of third-party intellectual property to develop and maintain our proprietary position. We, or our collaborators and licensors, file patent applications directed to our key product candidates in an effort to establish intellectual property positions to protect our product candidates as well as processes for producing our product candidates and uses of our product candidates for the prevention and/or treatment of diseases.

With regard to ATL001, we in-license from Cancer Research Technology Limited, or CRT, a family of pending patent applications and granted patents with claims directed to a method of treating cancer, including non-small cell lung cancer and melanoma, and claims directed to a T cell composition comprising a CAR-T or TCR-T that binds a clonal neoantigen that includes three pending U.S. patent applications, one granted EP patent, one granted Singapore patent and 21 foreign patent applications pending in various jurisdictions such as Australia, Europe Canada, China, Japan and South Korea. Patent applications in this family, if issued, are expected to expire in 2036 without giving effect to any potential patent term extensions and patent term adjustments and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees.

With regards to ATL001, we own a pending patent application filed in Great Britain at the UK Intellectual Property Office, or UKIPO, with claims directed to treatment regimens for using T cell therapy in combination with a specific cytokine in the treatment of cancer. If a patent were to issue from a patent application claiming priority from this Great Britain patent application, such a patent would be expected to expire in 2041 (providing it is timely filed in 2021), without giving effect to any potential patent term extensions and patent term adjustments and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees.

We also in-license from CRT a family of pending patent applications with claims directed to a method for determining the loss of an HLA allele in a tumor, which is referred to as the “LOHHLA” bioinformatics tool, which enables prediction of neoantigens that are presented by an HLA molecule that has not been lost by the tumor, and hence are still available for targeting by immunotherapy, and methods of treating cancer by targeting neoantigens that are predicted to be presented by an HLA molecule that has not been lost from the tumor, which family that includes a pending U.S. patent application and eight foreign patent application pending in various jurisdictions, namely Australia, Canada, China, Europe, Hong Kong, India, Russia and Japan. Patent applications in this family, if issued, are expected to expire in 2038 without giving effect to any potential patent term extensions and patent term adjustments and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees.

We own a pending patent application filed in Great Britain at the UKIPO with claims directed to a tumor sample collection and disaggregation device. If a patent were to issue from a patent application claiming priority from this Great Britain patent application, such a patent would be expected to expire in 2041 (provided it is timely

filed in 2021), without giving effect to any potential patent term extensions and patent term adjustments and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees.

Government regulation

The FDA and other U.S. regulatory authorities at federal, state, and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring, and post-approval reporting of biological product candidates such as those we are developing. We, along with third-party contractors, will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval or licensure of our product candidates. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

U.S. biological products development process

In the United States, biological products are subject to regulation under the Federal Food, Drug, and Cosmetic Act, or FDC Act, the Public Health Service Act, or PHS Act, and other federal, state, local and foreign statutes and regulations. The process required by the FDA before a biological product candidate may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies performed in accordance with FDA's good laboratory practice, or GLP, requirements and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an application for an IND which must become effective before human clinical trials may begin;
- approval of the protocol and related documentation by an independent institutional review board, or IRB, or ethics committee at each clinical trial site before each study may be initiated;
- performance of adequate and well-controlled human clinical trials according to the FDA's good clinical practice, or GCP, requirements and any additional requirements for the protection of human research subjects and their health information, to establish the safety, purity, and potency of the proposed biological product candidate for its intended use;
- preparation and submission to the FDA of a biologic license application, or BLA, after completion of all pivotal clinical trials that includes substantial evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA pre-license inspection of the manufacturing facility or facilities where the biological product is produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current good tissue practices, or cGTPs, for the use of human cellular and tissue products;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- a determination by the FDA within sixty (60) days of its receipt of a BLA to file the application for review;
- potential FDA audit of selected nonclinical study and clinical trial sites that generated the data in support of the BLA to assess compliance with GLP or GCP, as applicable;

- payment of user fees for FDA review of the BLA (unless a fee waiver applies); and
- FDA review and approval, or licensure, of the BLA to permit commercial marketing of the product for particular indications for use in the United States.

Before testing any biological product candidate in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product biological characteristics, chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs.

The clinical trial sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. Some preclinical testing may continue even after the IND is submitted. An IND is a request for authorization from the FDA to ship an unapproved, investigational product in interstate commerce and to administer it to humans, and must become effective before clinical trials may begin.

The IND automatically becomes effective thirty (30) days after receipt by the FDA, unless the FDA places the clinical trial on a clinical hold within that thirty (30)-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA also may impose clinical holds on a biological product candidate at any time before or during clinical trials due to, among other considerations, unreasonable or significant safety concerns, inability to assess safety concerns, lack of qualified investigators, a misleading or materially incomplete investigator brochure, study design deficiencies, interference with the conduct or completion of an a study designed to be adequate and well-controlled for the same or another investigational product, insufficient quantities of investigational product, lack of effectiveness, or non-compliance. If the FDA imposes a clinical hold, studies may not recommence without FDA authorization and then only under terms authorized by the FDA.

Clinical trials involve the administration of the biological product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the study sponsor’s control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA’s regulations comprising the GCP requirements, including the requirement that all research subjects provide informed consent. Further, each clinical trial and its related documentation must be reviewed and approved by an Institutional Review Board, or IRB, at or servicing each site at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of study participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed.

Clinical trials typically are conducted in three sequential phases that may overlap or be combined:

- Phase 1. The biological product candidate is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients. These studies are designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the biological product candidate in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence of effectiveness.

- Phase 2. The biological product candidate is evaluated in a limited patient population with a specific disease or condition 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, optimal dosage and dosing schedule. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- Phase 3. The biological product candidate is administered to an expanded patient population to further evaluate dosage, clinical efficacy, potency, and safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product candidate and provide an adequate basis for approval and product labeling.

In some cases, the FDA may require, or companies may voluntarily pursue, additional clinical trials after a biological product is approved to gain more information about the product. These post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may also be made a condition to approval of the BLA. Failure to exhibit due diligence with regard to conducting required Phase 4 clinical trials could result in withdrawal of approval for products.

Concurrent with clinical trials, companies usually complete additional animal studies and also must develop additional information about the physical characteristics of the biological product as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHS Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

During all phases of clinical development, the FDA requires extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events, any findings from other studies, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human subjects, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within fifteen (15) calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries.

U.S. review and approval processes

After the completion of clinical trials of a biological product candidate, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA must include results of product development,

laboratory and animal studies, human studies, information on the manufacture and composition of the product, proposed labeling and other relevant information.

Within sixty (60) days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the FDA accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. In most cases, the submission of a BLA is subject to a substantial application user fee, although the fee may be waived under certain circumstances. Under the performance goals and policies implemented by the FDA under the Prescription Drug User Fee Act, or PDUFA, for original BLAs, the FDA targets ten months from the filing date in which to complete its initial review of a standard application and respond to the applicant, and six months from the filing date for an application with priority review. Therefore, the BLA review process typically takes twelve (12) months from the date the application is submitted to the FDA because the FDA has approximately two months to make a “filing” decision. The FDA does not always meet its PDUFA goal dates, and the review process is often significantly extended by FDA requests for additional information or clarification. For example, the review process and the PDUFA goal date may be extended by three months if the FDA requests or the BLA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product’s identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult or novel questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and 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.

During the BLA review process, the FDA also will determine whether a risk evaluation and mitigation strategy, or REMS, is necessary to assure the safe use of the biological product candidate. A REMS is a safety strategy implemented to manage a known or potential serious risk associated with a product and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without a REMS, if required.

Before approving a BLA, the FDA typically will inspect the facilities at which the product is manufactured. The FDA will not approve the product 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. For a cell therapy product that includes human cells, tissues or tissue-based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient, the FDA also will not approve the product if the manufacturer is not in compliance with cGTPs. These are FDA regulations that govern the methods used in, and the facilities and controls used for, the manufacture of HCT/Ps. The primary intent of the cGTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through appropriate screening and testing. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND study requirements and GCP requirements. To assure cGMP, cGTP and

GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production and quality control.

Under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA for a novel product (e.g., new active ingredient, new indication, etc.) must contain data to assess the safety and effectiveness of the biological product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers for PREA requirements. Unless otherwise required by regulation, PREA does not apply to any biological product for an indication for which orphan designation has been granted.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. If the FDA decides not to approve the BLA in its present form, the FDA will issue a Complete Response letter that usually describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the Complete Response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a Complete Response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, including to subpopulations of patients, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings precautions or interactions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a REMS, or otherwise limit the scope of any approval. In addition, the FDA may require post marketing clinical trials, sometimes referred to as Phase 4 clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

Orphan drug designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a biological product available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan product designation must be requested before submitting a BLA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

Orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same biological product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity, or if the FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

A designated orphan drug many not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or, as noted above, if a second applicant demonstrates that its product is clinically superior to the approved product with orphan exclusivity or the manufacturer of the approved product is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Expedited development and review programs

The FDA offers various programs, including fast track designation, breakthrough therapy designation, accelerated approval, priority review and regenerative medicine advanced therapy, or RMAT, designation, that are intended to expedite or simplify the process for the development and FDA review of biological products that are intended for the treatment of serious or life-threatening diseases or conditions. To be eligible for fast track designation, biological product candidates must be intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a biological product candidate may request the FDA to designate the biologic as a fast track product at any time during the clinical development of the product. The sponsor of a fast track product has opportunities for more frequent interactions with the applicable FDA review team during product development and, once a BLA is submitted, the product candidate may be eligible for priority review. A fast track product may also be eligible for rolling review, where the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

Under the FDA's Breakthrough Therapy program, a biological product candidate may be eligible for breakthrough therapy designation if it is intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product candidate, alone or in combination with one or more other drugs or biologics, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. breakthrough therapy designation provides all the features of fast track designation in addition to intensive guidance on an efficient development program beginning as early as Phase 1, and FDA organizational commitment to expedited development, including involvement of senior managers and experienced review staff in a cross-disciplinary review, where appropriate.

Any marketing application for a biological product submitted to the FDA for approval, including a product candidate with a Fast Track designation and/or Breakthrough Therapy Designation, may be eligible for other types of FDA programs intended to expedite the FDA review and approval process, such as priority review and accelerated approval. Any product candidate is eligible for priority review if it is designed to treat a serious or life-threatening disease or condition, and if approved, would provide a significant improvement in safety or effectiveness compared to available alternatives for such disease or condition. The FDA will attempt to direct additional resources to the evaluation of an application for a biological product candidate designated for priority review in an effort to facilitate the review. Under priority review, the FDA's goal is to review an application within six months of the 60-day filing date, compared to ten months for a standard review.

Additionally, FDA may grant accelerated approval to a product candidate intended to treat a serious or life-threatening disease or condition upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, 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 that a sponsor of a biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. Products receiving accelerated approval may be subject to expedited withdrawal procedures if the sponsor fails to conduct the required post-marketing studies or if such studies fail to verify the predicted clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

In 2017, the FDA established a new RMAT designation as part of its implementation of the 21st Century Cures Act. The RMAT designation program is intended to fulfill the 21st Century Cures Act requirement that the FDA facilitate an efficient development program for, and expedite review of, any biological product that meets the following criteria: (i) the biological product qualifies as a RMAT, which is defined as a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, with limited exceptions; (ii) the biological product is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and (iii) preliminary clinical evidence indicates that the biological product has the potential to address unmet medical needs for such a disease or condition. RMAT designation provides all the benefits of breakthrough therapy designation, including more frequent meetings with the FDA to discuss the development plan for the product candidate and eligibility for rolling review and priority review. Product candidates granted RMAT designation may also be eligible for accelerated approval on the basis of a surrogate or intermediate endpoint reasonably likely to predict long-term clinical benefit, or reliance upon data obtained from a meaningful number of clinical trial sites, including through expansion of trials to additional sites.

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

Post-approval requirements

Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to cGMP. Biologic manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, which impose certain procedural and documentation requirements. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP that may affect the identity, potency, purity, or safety of a marketed product, and FDA also imposes reporting requirements. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance. Following approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual program fees for any marketed products. Other post-approval requirements applicable to biological products, include, among other things, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements.

In addition, after a BLA is approved, the product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits

samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot.

Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical holds, warning or untitled letters, product recalls, product seizures, safety alerts, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors or other stakeholders, debarment, restitution, disgorgement of profits, or civil or criminal penalties.

In addition, the FDA closely regulates the marketing, labeling, advertising and promotion of biological products. A company can make only those claims relating to safety and efficacy, purity and potency that are approved by the FDA and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer's communications on the subject of off-label use of their products.

U.S. patent term restoration and marketing exclusivity

Depending upon the timing, duration and specifics of the FDA approval of the use of our biological product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of fourteen (14) years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved biological product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. In addition, a patent can only be extended once and only for a single product. The U.S. PTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may intend to apply for restoration of patent term for one of our patents, if and as applicable, to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

The Affordable Care Act, or ACA, signed into law on March 23, 2010, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or the BPCIA, which created an abbreviated approval pathway for biological products shown to be similar to, or interchangeable with, an FDA-approved reference biological product. Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical trial or trials. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the biologic and the reference biologic may be

switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structure of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation that are still being worked out by the FDA.

A reference biological product is granted four and twelve (12) year exclusivity periods from the time of first licensure of the product. FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after the date of first licensure of the reference product, and FDA will not approve an application for a biosimilar or interchangeable product based on the reference biological product until twelve (12) years after the date of first licensure of the reference product. “First licensure” typically means the initial date the particular product at issue was approved in the United States. Date of first licensure does not include the date of licensure of (and a new period of exclusivity is not available for) a biological product if the licensure is for a supplement for the biological product or for a subsequent application by the same sponsor or manufacturer of the biological product (or licensor, predecessor in interest, or other related entity) for a change (not including a modification to the structure of the biological product) that results in a new indication, route of administration, dosing schedule, dosage form, delivery system, delivery device or strength, or for a modification to the structure of the biological product that does not result in a change in safety, purity, or potency. Therefore, one must determine whether a new product includes a modification to the structure of a previously approved product that results in a change in safety, purity, or potency to assess whether the licensure of the new product is a first licensure that triggers its own period of exclusivity. Whether a subsequent application, if approved, warrants exclusivity as the “first licensure” of a biological product is determined on a case-by-case basis with data submitted by the sponsor.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued “Written Request” for such a study. The BPCIA is complex and continues to be interpreted and implemented by the FDA. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation, and impact of the BPCIA is subject to significant uncertainty.

Additional regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

Government regulation outside of the United States

In addition to regulations in the United States, we are subject to a variety of regulations in other jurisdictions governing, among other things, research and development, clinical trials, testing, manufacturing, safety, efficacy, labeling, packaging, storage, record keeping, distribution, reporting, advertising and other promotional practices involving biological products as well as authorization and approval of our products.

Because biologically sourced raw materials are subject to unique contamination risks, their use may be restricted in some countries.

The requirements and process governing the conduct of clinical trials, product approval, pricing and reimbursement vary from country to country. In all cases, the clinical trials must be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension of clinical trials, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

European Union clinical trials regulation

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the European Union, for example, a CTA must be submitted for each clinical trial to each country's National Competent Authority, or NCA, and at least one independent Ethics Committee, or EC, much like the FDA and an IRB, respectively. Once the CTA is approved in accordance with a country's requirements, the corresponding clinical trial may proceed. Under the current regime (the EU Clinical Trials Directive 2001/20/EC and corresponding national laws) all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

In April 2014, the EU adopted a new Clinical Trials Regulation (EU) No 536/2014, which is set to replace the current Clinical Trials Directive 2001/20/EC. It will overhaul the current system of approvals for clinical trials in the EU. Specifically, the new regulation, which will be directly applicable in all Member States (meaning that no national implementing legislation in each EU Member State is required), aims at simplifying and streamlining the approval of clinical trials in the EU. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure via a single entry point and strictly defined deadlines for the assessment of clinical trial applications. It is expected that the new Clinical Trials Regulation (EU) No 536/2014 will come into effect following confirmation of full functionality of the Clinical Trials Information System, the centralized EU portal and database for clinical trials foreseen by the new Clinical Trials regulation, through an independent audit.

European Union drug review and approval

In the European Union, medicinal products, including advanced therapy medicinal products, or ATMPs, are subject to extensive pre- and post-market regulation by regulatory authorities at both the European Union and national levels. Under Article 2(1) of Regulation (EC) No 1394/2007, or the "ATMP Regulation," ATMPs include somatic cell therapy products, which are cells that have undergone substantial manipulation so that biological characteristics, physiological functions or structural properties relevant for the intended clinical use have been altered, where such cells are to be administered to human beings in order to cure, diagnose or prevent disease. Our current development products are somatic cell therapy medical products which would be regulated as ATMPs in the European Union.

To obtain regulatory approval of an ATMP under the European Union regulatory system, we must submit a marketing authorization application, or MAA, under the centralized procedure administered by the EMA. The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid across all of the EEA (which is made up of all the European Union Member States, as well as Iceland, Norway and Liechtenstein). As provided for in the ATMP Regulation, the scientific evaluation of MAAs for ATMPs is primarily performed by a specialized scientific committee called the Committee for Advanced Therapies, or CAT. The CAT prepares a draft opinion on the quality, safety and efficacy of the ATMP which is the subject of the

MAA, which is sent for final approval to the Committee for Medicinal Products for Human Use, or CHMP. The CHMP recommendation is then sent to the European Commission, which adopts a decision binding in all EEA Member States. The maximum timeframe for the evaluation of an MAA for an ATMP is 210 days from receipt of a valid MAA, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CAT and/or CHMP. Clock stops may extend the timeframe of evaluation of an MAA considerably beyond 210 days. Where the CHMP gives a positive opinion, the EMA provides the opinion together with supporting documentation to the European Commission, who make the final decision to grant a marketing authorization, which is issued within 67 days of receipt of the EMA's recommendation. 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 timeframe of 210 days for assessment will be reduced to 150 days (excluding clock stops), but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that the application is no longer appropriate to conduct an accelerated assessment.

The application used to submit the BLA in the United States is similar to that required in the European Union, with the exception of, among other things, certain specific requirements set out in the ATMP Regulation, for example certain particulars to be contained in the summary of product characteristics.

In the European Union, if human tissues and cells are used as starting materials in an ATMP, the donation, procurement and testing of the cells are covered by the Tissues and Cells Directive (2004/23/EC), or Human Tissue Directive. The competent authority in the UK under the Human Tissue Directive is the Human Tissue Authority, or HTA, which is responsible for licensing certain activities in the UK related to the donation, procurement and testing of cells used for the manufacture of ATMPs under the Human Tissue (Quality and Safety for Human Application) Regulations 2007. The processing, storage and distribution of the ATMP itself is governed by the medicines regulations and marketing authorization process set out above, however a separate license from the HTA may be needed for the initial procurement, processing, testing and storage (if for more than 48 hours) of the human cells which are to be subsequently used in the ATMP manufacture. Any organization involved in these activities in the UK will require an HTA license.

Data and marketing exclusivity in the EEA

The EEA also provides opportunities for market exclusivity. Upon receiving marketing authorization in the EEA, innovative medicinal products generally receive eight years of data exclusivity and an additional two years of market exclusivity. If granted, data exclusivity prevents generic or biosimilar applicants from referencing the innovator's pre-clinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization in the EEA, during a period of eight years from the date on which the reference product was first authorized in the EEA. During the additional two-year period of market exclusivity, a generic or biosimilar marketing authorization can be submitted, and the innovator's data may be referenced, but no generic or biosimilar product can be marketed until the expiration of the market exclusivity. The overall ten-year period will 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 therapeutic 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 chemical entity so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing authorization based on an MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Orphan drug designation and exclusivity in the EEA

Products receiving orphan designation in the EEA can receive ten years of market exclusivity, during which time no "similar medicinal product" for the same indication may be placed on the market. 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. An orphan product can also obtain an additional two years of market exclusivity where an agreed Pediatric Investigation Plan for pediatric studies has been complied with. No extension to any supplementary protection certificate can be granted on the basis of pediatric studies for orphan indications.

The criteria for designating an "orphan medicinal product" in the EEA are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if it meets the following criteria: (i) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; and (ii) either the prevalence of such condition must not be more than five (5) in ten thousand (10,000) persons in the EEA when the application is made; or without the benefits derived from orphan status, it must be unlikely that the marketing of the medicine would generate sufficient return in the EEA to justify the investment needed for its development; and (iii) there exists no satisfactory method of diagnosis, prevention or treatment of such condition, or if such a method exists, the product will be of significant benefit to those affected by the condition, as defined in Regulation (EC) 847/2000. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers made available by the EU and its Member States to support research into, and the development and availability of, orphan drugs. The application for orphan drug designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the MAA if the orphan drug designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The ten (10)-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Otherwise, orphan medicine marketing exclusivity may be revoked only in very select cases, such as if:

- it is established that a similar medicinal product is safer, more effective or otherwise clinically superior;
- the marketing authorization holder consents; or
- the marketing authorization holder cannot supply enough orphan medicinal product.

Pediatric development in the EEA

In the EEA, companies developing a new medicinal product must agree upon a Pediatric Investigation Plan, or PIP, with the EMA's Pediatric Committee, or PDCO, and must conduct pediatric clinical trials in accordance with that PIP, unless a waiver applies, (e.g., because the relevant disease or condition occurs only in adults). The PIP sets out the timing and measures proposed to generate data to support a pediatric indication of the drug for which marketing authorization is being sought. The marketing authorization application for the product must include the results of pediatric clinical trials conducted in accordance with the PIP, unless a waiver applies, or a deferral has been granted by the PDCO of the obligation to implement some or all of the measures of the PIP until there are sufficient data to demonstrate the efficacy and safety of the product in adults, in which case the pediatric clinical trials must be completed at a later date. Products that are granted a marketing authorization with the results of pediatric clinical trials conducted in accordance with the PIP are eligible for a six month extension of the protection under a supplementary protection certificate (if any is in effect at the time of approval) even where the trial results are negative. In the case of orphan medicinal products, a two year

extension of the orphan market exclusivity may be available. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

Post-approval controls

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 the following:

- The holder of a marketing authorization must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance, who is responsible for oversight of that system. Key obligations include expedited reporting of suspected serious adverse reactions and submission of periodic safety update reports, or PSURs.
- All new MAAs must include a risk management plan, or RMP, describing the risk management system that the company will put in place and documenting measures to prevent or minimize the risks associated with the product. The regulatory authorities may also impose specific obligations as a condition of the marketing authorization. Such risk-minimization measures or post-authorization obligations may include additional safety monitoring, more frequent submission of PSURs, or the conduct of additional clinical trials or post-authorization safety studies. RMPs and PSURs are routinely available to third parties requesting access, subject to limited redactions.
- All advertising and promotional activities for the product must be consistent with the approved SmPC and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the European Union. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each European Union Member State and can differ from one country to another.

European Union medical devices regulation

Some of our devices used to collect blood and tissue used in the manufacture of our medicinal products may be considered a class IIa medical device under the EU Medical Devices Regulations 2017/745, or EU MDR. The EU MDR will become fully applicable in all EU Member States from May 26, 2021 (therefore not including the UK). All medical devices require a CE mark to be placed on the market in the European Union. In order to obtain a CE mark, a notified body must conduct a conformity assessment of the device to confirm whether it complies with the essential safety and efficacy requirements in the EU MDR. Such requirements will differ depending on the class of the device. The conformity assessment usually involves an audit of the manufacturer's quality system and a review of the technical documentation from the manufacturer on the safety and performance of the device. If the notified body considers that the device is in conformity with the EU MDR, it will issue a conformity assessment certificate and the manufacturer of the device can place a CE mark on the device, allowing it to be marketed in any EU Member State.

As stated above, our product candidates may require use of an *in vitro* diagnostic to identify appropriate patient populations. As in the U.S., these diagnostics, referred to as companion diagnostics, are regulated as medical devices in the European Union and will be governed by the In-Vitro Diagnostic Devices Regulation (EU) 2017/746, or EU IVDR. The EU IVDR will become fully applicable in all EU Member States on May 26, 2022 (therefore not including the UK). The EU IVDR introduced more stringent requirements than the current EU In Vitro Diagnostics Directive 98/79/EC and manufacturers will need to apply to a notified body for a conformity assessment of their device under the EU IVDR in order for their device to be marketed after May 26, 2022. As manufacturers are currently able to place devices on the market under the EU IVDR, any new devices should be

assessed under this regime rather than the previous Directive. Before a notified body can issue a CE certificate for a companion diagnostic, it must seek a scientific opinion from the EMA on the suitability of the companion diagnostic to the medicinal product concerned if the medicinal product falls exclusively within the scope of the centralized marketing authorization procedure.

Brexit and the regulatory framework in the United Kingdom

In June 2016, the electorate in the United Kingdom voted in favor of leaving the European Union (commonly referred to as "Brexit"). Thereafter, in March 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. The United Kingdom formally left the European Union on January 31, 2020. A transition period began on February 1, 2020, during which European Union pharmaceutical law remained applicable to the United Kingdom, which ended on December 31, 2020. Since the regulatory framework for pharmaceutical products and medical devices in the United Kingdom covering quality, safety and efficacy of pharmaceutical products, medical devices, 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 which applies to products and the approval of product candidates and devices in the United Kingdom, as the UK legislation now has the potential to diverge from EU legislation. It remains to be seen how Brexit will impact regulatory requirements for product candidates and devices in the United Kingdom in the long-term. The MHRA has recently published detailed guidance for industry and organizations to follow now that the transition period is over, which will be updated as the UK's regulatory position on medicinal products and medical devices evolves over time.

Centralized marketing authorizations which have been granted before January 1, 2021 will automatically become Great Britain marketing authorizations on January 1, 2021, unless the marketing authorization holder opts out. Following January 1, 2021, an entirely separate application can be made to the MHRA for a Great Britain marketing authorization, which will be required alongside the centralized authorization for the EEA. Alternatively, for two years from January 1, 2021, Great Britain will adopt decisions taken by the European Commission on the approval of new marketing authorizations in the centralized marketing authorization procedure. In this case, MAAs for Great Britain (which will mirror the MAA used for the centralized application in the EEA) should be submitted to the MHRA following receipt of the CHMP opinion, and will be determined following conformation of notification of the EC decision.

As the EU MDR and EU IVDR become fully applicable after January 1, 2021, they will not apply to Great Britain. Instead, the Medical Devices Regulations 2002, or UK MDR, will apply. Following Brexit, before being placed on the market in Great Britain, all medical devices will not only require a CE mark but will also need to be registered with the MHRA. The MHRA will only register devices where the manufacturer has a registered place of business in the UK, or has appointed a UK Responsible Person who has a registered place of business in the UK. Devices must either conform to the UK MDR, or EU MDR or EU IVDR (until June 30, 2023 only) in order to be registered with the MHRA. There will be grace period to allow time for compliance with the new registration process which will depend on the class and type of device.

Other healthcare laws and compliance requirements

In addition to FDA restrictions on the marketing of pharmaceutical products, we may be subject to various federal and state laws targeting fraud and abuse in the healthcare industry. Healthcare providers, physicians, and third party payors play a primary role in the recommendation and prescription of drug products for which we obtain marketing approval. Arrangements with third party payors, healthcare providers and physicians, in connection with the clinical research, sales, marketing and promotion of products, once approved, and related activities, may expose a pharmaceutical manufacturer to broadly applicable fraud and abuse and other

healthcare laws and regulations. In the United States, these laws include, without limitation, state and federal anti-kickback, false claims, physician transparency, and patient data privacy and security laws and regulations, including but not limited to those described below:

- the federal Anti-Kickback Statute, or AKS, which makes it illegal for any person or entity, including a prescription drug manufacturer (or a party acting on its behalf) to knowingly and willfully solicit, receive, offer or pay any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, that is intended to induce or reward, referrals including the purchase recommendation, order or prescription of a particular drug for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution;
- the federal civil and criminal false claims laws, including the False Claims Act, which impose criminal and civil penalties, including through civil “qui tam” or “whistleblower” actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other federal health care programs that are false or fraudulent; knowingly making or causing a false statement material to a false or fraudulent claim or an obligation to pay money to the federal government; or knowingly concealing or knowingly and improperly avoiding or decreasing such an obligation. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims. 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 False Claims Act;
- the civil monetary penalties law, which prohibits, among other things, the offering or giving of remuneration, which includes, without limitation, any transfer of items or services for free or for less than fair market value (with limited exceptions), to a Medicare or Medicaid beneficiary that the person knows or should know is likely to influence the beneficiary’s selection of a particular supplier of items or services reimbursable by a federal or state governmental program;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created 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 the payer (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious, or fraudulent statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it;
- HIPAA, as amended by HITECH, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions;

- the federal Physician Payments Sunshine Act, created under Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the ACA, and its implementing regulations, which requires applicable manufacturers of drugs, devices, biological products and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the Centers for Medicare and Medicaid Services, or CMS, under the Open Payments Program, information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made to certain non-physician providers such as physician assistants and nurse practitioners;
- federal government price reporting laws, which require us to calculate and report complex pricing metrics in an accurate and timely manner to government programs;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers; and
- analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection and unfair competition laws which may apply to pharmaceutical business practices, including but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving healthcare items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government that otherwise restricts payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to file reports with states regarding pricing and marketing information, such as the tracking and reporting of gifts, compensations and other remuneration and items of value provided to healthcare professionals and entities; state and local laws requiring the registration of pharmaceutical sales representatives; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Efforts to ensure that our business arrangements comply with applicable healthcare laws involve substantial costs. It is possible that governmental and enforcement authorities will conclude that a pharmaceutical manufacturer's business practices do not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If a pharmaceutical manufacturer's operations, including its arrangements with physicians and other healthcare providers, some of whom receive stock options as compensation for services provided, are found to be in violation of any of such laws or any other governmental regulations that apply, governmental and enforcement authorities may institute action. If the pharmaceutical manufacturer is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business, including the imposition of significant civil, criminal and administrative penalties, damages, disgorgement, monetary fines, imprisonment, possible exclusion or suspension from participation in Medicare, Medicaid and other federal healthcare programs, integrity and oversight agreements to resolve allegations of non-compliance, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of operations, any of which could adversely affect a pharmaceutical manufacturer's ability to operate its business and the financial results of operations. Additionally, private individuals have the ability to bring actions on behalf of the U.S. government under the federal False Claims Act as well as under the false claims laws of several states against a pharmaceutical manufacturer. The approval and commercialization of a pharmaceutical manufacturer's

product candidates outside the United States will also likely subject it to foreign equivalents of the healthcare laws mentioned above, among other foreign laws. Lastly, if any of the physicians or other healthcare providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs, which may also adversely affect our business.

The risk of our being found in violation of these laws is increased by the fact that many of these laws have not been fully interpreted by the regulatory authorities or the courts, their provisions are open to a variety of interpretations, and are currently the subject of legal challenge. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. The shifting compliance environment and the need to build and maintain a robust system to comply with multiple jurisdictions with different compliance and reporting requirements increases the possibility that a healthcare company may violate one or more of the requirements. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial cost.

Healthcare Reform

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system. In particular, in 2010 the ACA was enacted, which, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, and provided incentives to programs that increase the federal government's comparative effectiveness research.

There have been a number of significant changes to the ACA and its implementation. The Tax Cuts and Jobs Act of 2017, or Tax Act, includes a provision that repealed 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 federal district court in Texas ruled the individual mandate is a critical and inseverable feature of the ACA, and therefore, because it was repealed as part of the Tax Act, the remaining provisions of the ACA are invalid as well. Additionally, on December 18, 2019, the U.S. Court of Appeals for the Fifth 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. The U.S. Supreme Court is currently reviewing the case, although it is unclear how the Supreme Court will rule. In addition, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and, effective January 1, 2021, also eliminates the health insurer tax. Although the Supreme Court has not yet ruled on the constitutionality of the ACA, on January 28, 2021, President Biden issued an executive order to initiate a special enrollment period from February 15, 2021 through May 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The executive order also instructs certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how the Supreme Court ruling, other such litigation, and the healthcare reform measures of the Biden administration will impact the ACA or our business.

The Bipartisan Budget Act of 2018, also amended the ACA, effective January 1, 2019, by increasing the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and closing the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." Similarly, on

April 9, 2018, CMS issued a final rule that, effective January 1, 2020, will gives states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces by relaxing certain requirements for essential health benefits required under the ACA for plans sold through such marketplaces.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, included aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in 2013, and, due to subsequent legislative amendments, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through March 31, 2021, unless additional Congressional action is taken. The American Taxpayer Relief Act of 2012 further reduced Medicare payments to several providers, including hospitals and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

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 state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. The probability of success of any previously announced policies under the former Trump administration and their impact on the United States prescription drug marketplace is unknown, particularly in light of the new Biden administration.

Further, 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 new product candidates 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 pharmaceutical manufacturer to make its product candidates available to eligible patients as a result of the Right to Try Act.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care 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 health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

We expect that additional foreign, federal and state healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, and result in reduced demand for our current product candidates and any future product candidates or additional pricing pressures. It is possible that additional governmental action is taken to address the COVID-19 pandemic. For example, on April 18, 2020, CMS announced that QHP issuers under the ACA may suspend activities related to the collection and reporting of quality data that would have otherwise been reported between May and June 2020 given the challenges healthcare providers are facing responding to the COVID-19 virus.

Legislative and regulatory proposals, and enactment of laws, at the foreign, federal and state levels, directed at containing or lowering the cost of healthcare, will continue into the future.

Employees and human capital resources

As of December 31, 2020, we had 153 full-time employees and six part-time employees. Of our 153 full and part-time employees, 48 have Ph.D. or M.D. degrees and 129 are engaged in research and development activities.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. The principal purposes of our equity incentive plans are to attract, retain and reward personnel through the granting of equity-based compensation awards in order to increase shareholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Leases

Our principal executive offices are located in London, United Kingdom, where we lease and occupy approximately 24,633 square feet of office and laboratory space. We also lease approximately 64,181 square feet of manufacturing space in London, United Kingdom. We believe that our current facilities are adequate to meet our ongoing needs and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Legal proceedings

We are not currently a party to any material legal proceedings. From time to time, we may become involved in litigation or legal proceedings relating to claims arising from the ordinary course of business.

Management

The following table sets forth the name, age and position our senior management, founders and directors as of the date of this prospectus. Unless otherwise stated, the business address of our members of senior management and our directors is c/o Achilles Therapeutics plc, 245 Hammersmith Road, London, W6 8PW, United Kingdom.

Name	Age	Position(s)
Senior Management:		
Iraj Ali, Ph.D.	45	Chief Executive Officer and Director
Robert Coutts	37	Chief Financial Officer
Karl Peggs, M.D.	54	Chief Medical Officer and Founder
Sergio Quezada, Ph.D.	46	Chief Scientific Officer and Founder
Founders:		
Mark Lowdell, Ph.D.	58	Founder
Charles Swanton, Ph.D.	49	Founder
Non—Executive Directors:		
Edwin Moses, Ph.D.[1][2][3]	66	Chairman of the Board of Directors
Martin Murphy, Ph.D.[4]	52	Director
Michael F. Giordano, M.D.[2][3]	62	Director
Carsten Boess[1][2][3]	54	Director
Derek DiRocco, Ph.D.[1]	40	Director
Roger Rooswinkel, Ph.D.	37	Director

(1) Member of Audit Committee

(2) Member of Remuneration Committee

(3) Member of Nominating Committee

(4) Dr. Murphy will resign immediately prior to the effectiveness of the registration statement of which this prospectus is a part.

Senior management

Iraj Ali, Ph.D. has served as our Chief Executive Officer since January 2018 and a member of our board of directors since March 2016. Previously, Dr. Ali served as a Managing Partner of Syncona Ltd., or Syncona, a leading healthcare investment company focused on founding, building and funding global leaders in life sciences and a major shareholder of our company, from December 2016 to December 2018. Dr. Ali was also an Investment Partner at Syncona from September 2012 to December 2018. Dr. Ali has a Ph.D. in Biochemistry from Cambridge University and a B.S. in Biochemistry from the University of Reading. We believe that Dr. Ali is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive global pharmaceutical experience.

Robert Coutts has served as our Chief Financial Officer since November 2020. Previously, Mr. Coutts served as our Finance Director, from November 2017 to November 2020 and as Subsidiary Financial Controller at Syncona

from June 2015 to November 2017. Mr. Coutts has a M.Sc. in Management from the Cass Business School, City University and a B.A. in Politics, Philosophy and Economics from New College, Oxford University and is a qualified chartered accountant.

Karl Peggs, M.D. is one of our founders and has served as our Chief Medical Officer since January 2021. From May 2016 to December 2020, Dr. Peggs served on our board of directors. Dr. Peggs received a M.A. from Cambridge University, a M.B., B.Ch. from Oxford University Medical School and is a Member of the Royal College of Medicine and Fellow of the Royal College of Pathologists.

Sergio Quezada, Ph.D. is one of our founders and has served as our Chief Scientific Officer since April 2020. He has also been a Professor of Cancer Immunology and Immunotherapy at University College London Cancer Institute since January 2011, as well as a Cancer Research UK, or CRUK, senior cancer research fellow since January 2011. Previously, Dr. Quezada co-led the development of novel antibody for the depletion of regulatory T cells for TUSK Therapeutics Ltd., a company focused on developing novel immuno-oncology products. Dr. Quezada holds a Ph.D. from Dartmouth Medical School and a B.S. in Biochemistry and Molecular Biology from the Pontificia Universidad Católica de Chile. From 2004 to 2010, Dr. Quezada completed his post-doctoral training at Memorial Sloan-Kettering Cancer Center.

Founders

Mark Lowdell, Ph.D. is one of our founders. Dr. Lowdell has served as the Chief Scientific Officer of INmune Bio, Inc., a clinical stage immuno-oncology company, since October 2015. Dr. Lowdell has also been a Professor of Cell and Tissue Therapy at University College London since January 1994 and Director of Cellular Therapy at the Royal Free London NHS Foundation Trust since February 2009. Dr. Lowdell is a co-founder of INmune Bio Inc which he took through IPO on Nasdaq in April 2018 and served on the board of directors from September 2015 to July 2018. Dr. Lowdell received his Ph.D. in Clinical Immunology from London Hospital Medical College, University of London in 1992 and completed his fellowship training at the Royal College of Pathologists. He is a qualified immunopathologist and an EU Qualified Person for the certification of cell and gene therapy medicines.

Charles Swanton, Ph.D. is one of our founders. Dr. Swanton has also been a Royal Society Napier Professor of Cancer since 2016 and consultant thoracic oncologist at UCL Hospitals since 2011. Dr. Swanton has also served as Chief Clinician at CRUK since 2017, group Leader of the Cancer Evolution and Genome Instability laboratory at CRUK and the Francis Crick Institute since 2008, co-director of the CRUK Lung Cancer Centre of Excellence since 2008 and is chief investigator of the UK cancer evolution program TRACERx, a position he has held since 2013. Dr. Swanton holds an M.B., B.S. and first class honors degree in Cell Biology and Immunology from UCL medical schools and a Ph.D. from the Imperial Cancer Research Fund. He is a Fellow of the Royal College of Physicians (2011), Fellow of the Academy of Medical Sciences (2015), Fellow of the Royal Society (2018) and a Fellow of the American Association for Cancer Research (2020).

Non-executive directors

Edwin Moses, Ph.D. has served as the Chairman and a member of our board of directors since December 2018. He was the Chief Executive Officer of Ablynx N.V., or Ablynx, a biopharmaceutical company, a position he held from March 2006 until Ablynx's acquisition by Sanofi in June 2018. Dr. Moses also served on the board of directors of Ablynx from 2004 until 2018. Dr. Moses received his B.S. and Ph.D. in Chemistry from the University of Sheffield. We believe that Dr. Moses is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive executive experience.

Martin Murphy, Ph.D. has served on our board of directors since January 2018, and will resign immediately prior to the effectiveness of the registration statement of which this prospectus is a part. Dr. Murphy has served as the Chief Executive Officer of Syncona Investment Management Limited, part of Syncona, since December 2016. Dr. Murphy is a founder of Syncona Partners LLP and served as its Chief Executive Officer from May 2012 to December 2016. He has also served on the board of directors of Autolus Therapeutics plc since September 2014. Dr. Murphy has a Ph.D. in Biochemistry from the University of Cambridge, an M.A. in Biochemistry from the University of Oxford.

Michael F. Giordano, M.D. has served on our board of directors since September 2018. Dr. Giordano has served as a Clinical Advisor and Interim Chief Medical Officer to Epizyme, Inc., or Epizyme, a biopharmaceutical company, from December 2017 to August 2018. From 1999 to 2017, Dr. Giordano worked at Bristol-Myers Squibb Company, a pharmaceutical company, most recently serving as Senior Vice President and Head of Development, Oncology and Immuno-Oncology from February 2012 to February 2017. Dr. Giordano has also served on the board of directors of Epizyme since March 2018 and on the board of directors of RAPT Therapeutics, Inc. since February 2018. He earned his M.D. and completed his residency and fellowship training at New York Presbyterian-Weill Cornell Medical Center, and received his B.A. in Natural Sciences from The Johns Hopkins University. We believe that Mr. Giordano is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive pharmaceutical experience.

Carsten Boess has served on our board of directors since April 2020. Previously, Mr. Boess was the Executive Vice President of Corporate Affairs at Kiniksa Pharmaceuticals, Ltd., a biotechnology company, from August 2015 until February 2020. Mr. Boess has also served as a director for Rocket Pharmaceuticals, Inc. since January 2016, Avidity Biosciences, Inc. since April 2020, and Health Sciences Acquisition Corp. 2 since August 2020. Mr. Boess received a B.S. and M.S. in Economics and Finance, specializing in Accounting and Finance, from the University of Odense, Denmark. We believe that Mr. Boess is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive executive experience.

Derek DiRocco, Ph.D. has served as a member of our board of directors since September 2019. Dr. DiRocco has been a Principal at RA Capital Management, L.P., or RA Capital, an investment advisory firm that invests in healthcare and life science companies and a major shareholder of our company, since December 2017 and was previously an analyst at RA Capital from June 2015 to December 2017. Dr. DiRocco has served on the board of directors of 89bio, Inc. since April 2018 and on the board of directors for iTeos Therapeutics, Inc. since March 2020. Dr. DiRocco holds a B.A. in Biology from College of the Holy Cross and a Ph.D. in pharmacology from the University of Washington. We believe that Dr. DiRocco is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive biotechnology industry experience.

Rogier Rooswinkel, Ph.D. has served as a member of our board of directors since September 2019. Dr. Rooswinkel has been a Partner at Forbion IV Management B.V., a venture capital fund and through its affiliate, Forbion Capital Fund IV Cooperatief U.A., a major shareholder of our company, since April 2013. Dr. Rooswinkel holds a Ph.D. in Oncology from the University of Amsterdam, Netherlands, a M.Sc. in Oncology from the Vrije Universiteit Amsterdam, Netherlands, and a B.S. in Medical Natural Sciences from the Free University, Netherlands. We believe that Dr. Rooswinkel is qualified to serve on our board of directors because of his experience, qualifications, attributes and skills, including his extensive biotechnology industry experience.

Family relationships

There are no family relationships among any of our executive officers or directors.

Corporate governance practices

We are a “foreign private issuer,” as defined by the SEC. As a result, in accordance with Nasdaq listing requirements, we may rely on home country governance requirements and certain exemptions thereunder rather than complying with Nasdaq corporate governance standards. While we expect to voluntarily follow most Nasdaq corporate governance rules, we may choose to take advantage of the following limited exemptions:

- exemption from filing 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;
- exemption from Section 16 rules requiring insiders to file public reports of their securities ownership and trading activities and providing for liability for insiders who profit from trades in a short period of time;
- exemption from the Nasdaq requirement necessitating disclosure of any waivers of the Code of Business Conduct and Ethics for directors and executive officers;
- exemption from the requirement to obtain shareholder approval for certain issuances of securities, including shareholder approval of share option plans;
- exemption from the requirement that our audit committee have review and oversight responsibilities over all “related party transactions,” as defined in Item 7.B of Form 20-F;
- exemption from the requirement that our board have a remuneration committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities; and
- exemption from the requirement to have independent director oversight of director nominations.

We intend to follow U.K. corporate governance practices under the Companies Act 2006 in lieu of Nasdaq corporate governance requirements as follows:

- We do not intend to follow Nasdaq Rule 5620(c) regarding quorum requirements applicable to meetings of shareholders. Such quorum requirements are not required under English law. In accordance with generally accepted business practice in the U.K., our Articles of Association (to be in effect upon completion of this offering) will provide alternative quorum requirements that are generally applicable to meetings of shareholders.
- We do not intend to follow Nasdaq Rule 5605(b)(2), which requires that independent directors regularly meet in executive sessions where only independent directors are present. Our independent directors may choose to meet in executive sessions at their discretion.

Although we may rely on certain home country corporate governance practices, we must comply with Nasdaq’s Notification of Noncompliance requirement (Nasdaq Rule 5625) and the Voting Rights requirement (Nasdaq 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).

Because we are a foreign private issuer, our directors and executive officers are not subject to short-swing profit and insider trading reporting obligations under Section 16 of the Exchange Act. They will, however, be subject to the obligations to report changes in securities ownership under Section 13 of the Exchange Act and related SEC rules.

We intend to take all actions necessary for us to maintain compliance as a foreign private issuer under the applicable corporate governance requirements of the Sarbanes-Oxley Act, the rules adopted by the SEC and Nasdaq listing rules.

Accordingly, our shareholders will not have the same protections afforded to shareholders of companies that are subject to all of the corporate governance requirements of Nasdaq. For an overview of our corporate governance principles, see the section titled “Description of share capital and articles of association - Differences in corporate law.”

Composition of our board of directors

Our board of directors is currently composed of seven members. Our board of directors has determined that, of our six directors which will serve after the closing of this offering, no director, other than Dr. Iraj Ali, has a relationship that would interfere with the exercise of independent judgment in carrying out his or her responsibilities as a director and that each of these directors is “independent” as that term is defined under Nasdaq rules.

The Articles of Association that will be in effect upon completion of this offering provide that our board of directors will consist of one class of directors constituting our entire board. At each annual general meeting, the successors of directors whose terms then expire will be elected to serve from the time of election and qualification until the subsequent annual meeting following election. Any director who has been appointed by our board of directors since the last annual general meeting, must retire from office and may offer themselves for reappointment by the shareholders by ordinary resolution.

Each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. See “Description of share capital and articles of association—Key provisions of our post-IPO articles of association—Board of directors.”

Committees of our board of directors

Our board of directors has three standing committees: an audit committee, a remuneration committee and a nominating committee.

Audit committee

The audit committee consists of Edwin Moses, Ph.D., Derek DiRocco, Ph.D. and Carsten Boess, and assists the board of directors in overseeing our accounting and financial reporting processes. Carsten Boess will serve as chairman of the audit committee. The audit committee consists exclusively of members of our board who are financially literate, and Carsten Boess is considered an “audit committee financial expert” as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq rules and regulations. Our board has determined that all of the members of the audit 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 will include:

- recommending the appointment of the independent auditor to the general meeting of shareholders;
- the appointment, compensation, retention and oversight of any accounting firm engaged for the purpose of preparing or issuing an audit report or performing other audit services;
- pre-approving the audit services and non-audit services to be provided by our independent auditor before the auditor is engaged to render such services;
- evaluating the independent auditor’s qualifications, performance and independence, and presenting its conclusions to the full board of directors on at least an annual basis;

- reviewing the adequacy of our internal controls with management and any remediation plan associated with any significant control deficiencies or material weaknesses;
- reviewing and discussing with management and our independent registered public accounting firm our financial statements and our financial reporting process; and
- reviewing, approving or ratifying any related party transactions.

Remuneration committee

Upon completion of this offering, Edwin Moses, Ph.D., Carsten Boess and Michael F. Giordano, M.D. will serve on the remuneration committee, which will be chaired by Edwin Moses, Ph.D.. The remuneration committee's responsibilities include:

- annually reviewing and recommending to the board of directors the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and based on such evaluation (i) setting the cash compensation of our Chief Executive Officer and (ii) reviewing and approving grants and awards to our Chief Executive Officer under equity-based plans;
- reviewing and approving the cash compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable Nasdaq rules;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and recommending to the board of directors the compensation of our directors;
- preparing our remuneration committee report if and when required by SEC rules;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis," if and when required, to be included in our annual proxy statement; and
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters.

Our board of directors has determined that each member of the remuneration committee is "independent" as defined in the applicable Nasdaq rules. Each member of our remuneration committee will be a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act.

Nominating committee

Upon completion of this offering, the nominating committee will consist of Edwin Moses, Ph.D., Michael F. Giordano, M.D. and Carsten Boess. Edwin Moses, Ph.D. will serve as chairman of the nominating committee.

The nominating committee's responsibilities will include:

- determining selection criteria and appointment procedures for directors;
- recommending nominees for election to our board of directors and appointment to its committees;

- assessing the functioning of our board of directors and executive officers and reporting the results of such assessment to the board of directors; and
- developing corporate governance guidelines and any other governance policies.

Code of business conduct and ethics

Prior to the completion of this offering, we intend to adopt a Code of Business Conduct and Ethics, or Code of Ethics, applicable to our and our subsidiaries' employees, independent contractors, senior management and directors, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions.

Compensation of senior management and directors

For the year ended December 31, 2020, the aggregate compensation paid to the members of our board of directors and our executive officers for service in all capacities was $3,157,133, including grant date fair value of any equity grants made to such individuals during the fiscal year ended December 31, 2020 (which amounted to $1,539,338). This share-based compensation included options to purchase an aggregate of 92,296 Class L Ordinary Shares with an exercise price of £4.55 ($6.01) per share, options to purchase an aggregate of 36,186 Class M Ordinary Shares with an exercise price of £4.55 ($6.01) per share and options to purchase an aggregate of 66,915 Class M Ordinary Shares with an exercise price of £5.42 ($7.16) per share, in each case that expire 5 years after the date of grant.

As of December 31, 2020, our current executive officers and directors had been granted 2,373,913 shares in the organization. The total amounts paid in relation to pension, retirement or similar benefits for our directors and officers for the fiscal year ended December 31, 2020 was $24,527.

During the year ended December 31, 2020, our executive officers were eligible for discretionary annual bonus compensation and $5,789 was paid in relation to healthcare benefits for our executive officers.

Executive employment agreements

We engage our executive officers using standard terms as set out in our executive employment agreements. These agreements entitle the executive officers to receive an annual base salary. These agreements also entitle the executive officer to participate in a discretionary bonus scheme, the amount of any such bonus to be determined by the remuneration committee. We also contribute a certain percentage of the executive officers' basic salary to a group personal pension scheme. We also pay cash into one of our executive's self-invested personal pension scheme. The agreements also provide payment in lieu of notice termination rights. The executive officers are entitled to a number of additional benefits generally available to our employees.

These agreements contain standard intellectual property and confidentiality provisions, which survive termination and also contain 12-month non-competition and non-solicitation restrictive covenants.

Director appointment letters

We have entered into appointment letters with each non-executive director who is not affiliated with one of our investor shareholders. The appointment letters provide for an initial share option grant as compensation for services. In accordance with each appointment letter, such non-executive director's directorship may be terminated on the final day of any month by either party giving 30 days' written notice.

Equity incentive plans

Outstanding equity program

Employee shares

Pursuant to our Articles of Association, we have made equity grants in the form of D, E, F, G, H, I, J, K, L, M and N ordinary shares, collectively referred to as Employee Shares.

The Employee Shares generally vest over a four-year service period with 25% of the award vesting on the first anniversary of the vesting commencement date, with the balance vesting monthly over the remaining three years. Unvested Employee Shares are forfeited upon a termination of employment or service relationship. The forfeited shares are converted into deferred shares, with a repurchase right for a nominal amount in favor of us.

2020 Omnibus plan

In 2020, we established an option pool for purposes of granting share options and allotting shares to our employee and non-employee service providers. As of December 31, 2020, we had reserved 4,841,009 ordinary shares for the employee share option pool (amounting to 15% of our issued share capital on a fully diluted basis).

On September 23, 2020, our board of directors adopted our Omnibus Plan and on October 13, 2020 our shareholders approved the Omnibus Plan for purposes of making awards under the employee share option pool. Our Omnibus Plan is comprised of our Share Awards Plan, 2020 Share Option and Grant Plan and the underlying award agreements. Certain employees based in the U.K. are eligible to receive grants under the Share Awards Plan. Further, certain employees based in the U.K., as well as all employees based in the U.S., are eligible to receive grants under the 2020 Share Option and Grant Plan. Our Omnibus Plan provides for the grant of incentive share options within the meaning of Section 422 of the Code to our employees and our parent and subsidiary corporations' employees, and for the grant of nonstatutory share options, restricted share awards, restricted share unit awards and other forms of share compensation to our employees, including officers, consultants and directors. The maximum number of shares that may be issued pursuant to exercise of incentive share options under the Omnibus Plan is 4,841,009.

Authorized shares

Shares issued under our Omnibus Plan may be authorized but unissued or reacquired shares. Shares subject to share awards granted under our Omnibus Plan that are cancelled or terminate without being exercised in full will not reduce the number of shares available for issuance under our Omnibus Plan. Additionally, shares issued pursuant to share awards under our Omnibus Plan that we repurchase or that are forfeited, as well as shares reacquired by us as consideration for the exercise or purchase price of a share award or to satisfy tax withholding obligations related to a share award, will become available for future grant under our Omnibus Plan.

Administration

Our board of directors, or a duly authorized committee thereof, has the authority to administer our Omnibus Plan. Subject to the terms of our Omnibus Plan, the administrator has the authority to determine the terms of awards, including recipients, the exercise price or strike price of share awards, if any, the number of shares subject to each share award, the fair market value of a share of our common share, the vesting schedule applicable to the awards, together with any vesting acceleration, the form of consideration, if any, payable upon exercise or settlement of the share award and the terms and conditions of the award agreements for use under our Omnibus Plan.

Corporate transactions

Our Omnibus Plan provides that in the event of a specified corporate transaction, including without limitation a consolidation, merger or similar transaction involving our company, the sale, lease or other disposition of all or substantially all of the assets of our company or the consolidated assets of our company and our subsidiaries, or a sale or disposition of at least 50% of the outstanding capital share of our company, the administrator will determine how to treat each outstanding equity award. The administrator may:

- arrange for the assumption, continuation or substitution of a share award by a successor corporation;
- accelerate the vesting of the share award and provide for its termination prior to the effective time of the corporate transaction; or
- cancel the share award in exchange for a cash payment, which may be reduced by the exercise price payable in connection with the share award.

The administrator is not obligated to treat all equity awards or portions of equity awards, even those that are of the same type, in the same manner. The administrator may take different actions with respect to the vested and unvested portions of an equity award.

Change of control

The administrator may provide, in an individual award agreement or in any other written agreement between us and the participant, that the equity award will be subject to additional acceleration of vesting and exercisability in the event of a change of control. In the absence of such a provision, no such acceleration of the award will occur.

Plan amendment or termination

Our board has the authority to amend, suspend or terminate our Omnibus Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No share awards may be granted after the tenth anniversary of the date our board of directors adopts our Omnibus Plan.

2021 Employee share purchase plan

We intend to adopt the 2021 Employee Share Purchase Plan, or ESPP, which will be effective the day prior to the listing of the ADSs on Nasdaq. We may elect to implement the ESPP in the future following this offering.

The ESPP initially reserves and authorizes up to a total of 467,738 ordinary shares to participating employees. The ESPP provides that the number of shares reserved and available for issuance will automatically increase each January 1st, beginning on January 1, 2022, by the least of (i) 467,738 ordinary shares, or (ii) up to 1% of the outstanding number of ordinary shares on the immediately preceding December 31st, or such lesser number of ordinary shares as determined by the plan administrator. The share reserve is subject to adjustment in the event of a share split, share dividend or other change in our capitalization.

The ESPP is administered by our remuneration committee. The administrator has the authority to make all determinations for administration of the ESPP. The remuneration committee may adopt subplans under the 2021 ESPP for our non-U.S. service providers, including employees, directors and consultants, and may permit such service providers to participate in the ESPP on different terms, to the extent permitted by applicable law.

All employees employed by us or by any of our designated affiliates for at least 3 months whose customary employment is for more than 20 hours a week (unless this exclusion is not permitted by applicable law) are eligible to participate in the ESPP. Any employee who owns 5% or more of the total combined voting power or value of all classes of our shares is not eligible to purchase ordinary shares under the ESPP.

Offerings to our employees to purchase ordinary shares under the ESPP may be made at such times as determined by the administrator. Offerings will continue for such period, referred to as offering periods, as the administrator may determine, but may not be longer than 27 months. Each eligible employee may elect to participate in any offering by submitting an enrollment form before the applicable offering date.

Each employee who is a participant in the ESPP may purchase ordinary shares by authorizing payroll deductions of up to 15% of his or her eligible compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to

purchase ordinary shares on the last business day of the applicable offering period equal to the lower of (i) the accumulated payroll deductions divided by either a per share price equal to 85% of the fair market value of a share of our ordinary shares on the first business day or the last business day of the offering period, whichever is lower, (ii) a number of ordinary shares determined by dividing the product of (A) $2,500 and (B) the number of months in the offering period, by the fair market value on the first day of the offering period, or (iii) such other lesser maximum number of ordinary shares as shall have been established by the administrator in advance of the offering. Under applicable tax rules, an employee may purchase no more than $25,000 worth of ordinary shares, valued at the start of the purchase period, under the ESPP in any calendar year.

The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under the ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.

The ESPP may be terminated or amended by our remuneration committee or board of directors at any time. An amendment that increases the number of our ordinary shares that are authorized under the ESPP and certain other amendments require the approval of our shareholders.

2021 Omnibus plan

We intend to adopt the 2021 Omnibus Plan, or the 2021 Plan, which will be effective the day prior to the listing of the ADSs on Nasdaq. The 2021 Plan allows the remuneration committee to make equity-based and cash-based incentive awards to our officers, employees, directors and other key persons (including consultants). The material terms of the 2021 Plan are summarized below. Except where the context indicates otherwise, references hereunder to our ordinary shares shall be deemed to include a number of ADSs equal to an ordinary share. The remuneration committee may adopt subplans under the 2021 Plan for our non-U.S. service providers, including employees, directors and consultants, and may permit such service providers to participate in the 2021 Plan on different terms, to the extent permitted by applicable law.

We have initially reserved 2,572,558 ordinary shares, or the Initial Limit, for the issuance of awards under the 2021 Plan. The 2021 Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2022, by 4% of the outstanding number of ordinary shares on the immediately preceding December 31, or such lesser number of shares as determined by our remuneration committee, or the Annual Increase. This number is subject to adjustment in the event of a sub-division, consolidation, share dividend or other change in our capitalization.

The ordinary shares underlying any awards that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of shares, expire or are otherwise terminated (other than by exercise) under the 2021 Plan will be added back to the ordinary shares available for issuance under the 2021 Plan.

The maximum aggregate number of shares that may be issued in the form of incentive share options shall not exceed the Initial Limit cumulatively increased on January 1, 2022 and on each January 1 thereafter by the lesser of the Annual Increase for such year or 2,572,558 ordinary shares.

The 2021 Plan will be administered by our remuneration committee. Our remuneration committee has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 2021 Plan. Persons eligible to participate in the 2021 Plan will be those full or part-time officers, employees, non-employee directors and other key persons (including consultants) as selected from time to time by our remuneration committee in its discretion.

The 2021 Plan permits the granting of both options to purchase ordinary shares intended to qualify as incentive share options under Section 422 of the Code, and options that do not so qualify. The option exercise price of

each option will be determined by our remuneration committee but may not be less than 100% of the fair market value of our ordinary shares on the date of grant. The term of each option will be fixed by our remuneration committee and may not exceed 10 years from the date of grant. Our remuneration committee will determine at what time or times each option may be exercised.

Our remuneration committee may award share appreciation rights subject to such conditions and restrictions as it may determine. Share appreciation rights entitle the recipient to ordinary shares, or cash, equal to the value of the appreciation in our share price over the exercise price. The exercise price of each share appreciation right may not be less than 100% of the fair market value of the ordinary shares on the date of grant.

Our remuneration committee may award restricted shares and restricted share units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our remuneration committee may also grant ordinary shares that are free from any restrictions under the 2021 Plan. Unrestricted shares may be granted to participants in recognition of past services or other valid consideration and may be issued in lieu of cash compensation due to such participant. Our remuneration committee may grant cash bonuses under the 2021 Plan to participants, subject to the achievement of certain performance goals.

The 2021 Plan provides that in the case of, and subject to, the consummation of a “sale event” as defined in the 2021 Plan, all outstanding awards may be assumed, substituted or otherwise continued by the successor entity. To the extent that the successor entity does not assume, substitute or otherwise continue such awards, then: (i) all share options and share appreciation rights will automatically become fully exercisable and the restrictions and conditions on all other awards with time-based conditions will automatically be deemed waived, and awards with conditions and restrictions relating to the attainment of performance goals may become vested and non-forfeitable in connection with a sale event in the remuneration committee’s discretion; and (ii) upon the effectiveness of the sale event, the 2021 Plan and all awards will automatically terminate. In the event of such termination: (a) individuals holding options and share appreciation rights will be permitted to exercise such options and share appreciation rights (to the extent exercisable) prior to the sale event; or (b) we may make or provide for a cash payment to participants holding options and share appreciation rights equal to the difference between the per share cash consideration payable to shareholders in the sale event and the exercise price of the options or share appreciation rights (to the extent then exercisable).

Our board of directors may amend or discontinue the 2021 Plan and our remuneration committee may amend the exercise price of options and amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose but no such action may adversely affect rights under an award without the holder’s consent. The remuneration committee may adopt subplans under the 2021 Plan for our non-U.S. service providers, including employees, directors and consultants, and may permit such service providers to participate in the 2021 Plan on different terms, to the extent permitted by applicable law. Certain amendments to the 2021 Plan require the approval of our shareholders. No awards may be granted under the 2021 Plan after the date that is 10 years from the date of shareholder approval. No awards under the 2021 Plan have been made prior to the date of this prospectus.

Pension plan

We currently maintain a personal pension plan provided by Royal London whereby we make contributions to our UK eligible employee’s personal pension plan as we select. Each participant may make additional contributions at his or her discretion.

Insurance and indemnification

To the extent permitted by the Companies Act 2006 and in accordance with the Articles of Association which will be adopted immediately prior to the completion of this offering, we are empowered to indemnify our directors, officers and members of senior management against any liability they incur by reason of their directorship, office or position. We will, prior to the completion of this offering, obtain and maintain directors' and officers' insurance to insure such persons against certain liabilities. We expect to enter into a deed of indemnity with each of our directors, members of our senior management and other officers prior to the completion of this offering.

Related party transactions

Within this section, we have calculated the dollar amounts using the historical exchange rate as of the date of each transaction. Other than compensation arrangements described in “Management” elsewhere in this prospectus, since January 1, 2018, we have engaged in the following transaction with our executive officers, directors or holders of more than 5% of our share capital, including their affiliates, which we refer to as our related parties.

Private placements of securities

Series C financing

On November 19, 2020, we sold 24,412,603 of our Series C preferred shares at a price per share of £2.1589 and for aggregate gross proceeds of £52,704,368.62.

The following table summarizes the participation in the Series C preferred financing by our directors, executive officers and holders of more than 5% of our share capital, or their respective affiliates.

Shareholder	Series C preferred shares		Total purchase price
Entities affiliated with RA Capital Management, L.P.(1)	1,830,251	£	3,951,328.89
Forbion Capital Fund IV Cooperatief U.A.(2)	1,067,646		2,304,940.95
Entities affiliated with Baker Bros. Advisors LP(3)	10,190,375		22,000,000.59
Total	13,088,272	£	28,256,270.43

(1) Represents 1,252,330 Series C preferred shares purchased by RA Capital Healthcare Fund, L.P., 457,563 Series C preferred shares purchased by RA Capital Nexus Fund, L.P. and 120,358 Series C preferred shares purchased by Blackwell Partners LLC – Series A. Derek DiRocco serves as a member of our board of directors and is an affiliate of RA Capital Management, L.P., of which RA Capital Healthcare Fund, L.P. RA Capital Nexus Fund, L.P. and Blackwell Partners LLc – Series A are affiliated entities. Entities affiliated with RA Capital Management, L.P. hold more than 5% of our voting securities.

(2) Rogier Rooswinkel serves as a member of our board of directors and is an affiliate of Forbion IV Management B.V., of which Forbion Capital Fund IV Cooperatief U.A. is an affiliated fund. Forbion Capital Fund IV Cooperatief U.A. holds more than 5% of our voting securities.

(3) Represents 9,412,141 Series C preferred shares purchased by Baker Brothers Life Sciences, L.P. and 778,234 Series C preferred shares purchased by 667, L.P. Entities affiliated with Baker Bros. Advisors LP hold more than 5% of our voting securities.

Series B financing

On September 2, 2019, we agreed to sell 52,192,070 of our Series B preferred shares at a price per share of £1.916 and for aggregate gross proceeds of £100.0 million. This financing was structured in two tranches. The first tranche of this financing closed in September 2019, at which time we sold 34,794,714 Series B preferred shares for aggregate gross proceeds of £66.7 million. The second tranche of this financing closed in November 2020, at which time we sold 17,397,356 Series B preferred shares for aggregate gross proceeds of £33.3 million.

The following table summarizes the participation in the Series B preferred financing by our directors, executive officers and holders of more than 5% of our share capital, or their respective affiliates.

Shareholder	Series B preferred shares		Total purchase price
Syncona Portfolio Limited(1)	18,313,675	£	35,089,001.30
Entities affiliated with RA Capital Management, L.P.(2)	12,526,096		23,999,999.94
Forbion Capital Fund IV Cooperatief U.A.(3)	7,306,890		14,000,001.24
Entities affiliated with Baker Bros. Advisors LP(4)	2,609,604		5,000,001.27
Total	40,756,265	£	78,089,003.75

(1) Martin Murphy will serve as a member of our board of directors until immediately prior to the closing of this offering and is the Chief Executive Officer of Syncona Investment Management Limited, an affiliate of Syncona Portfolio Limited, which holds more than 5% of our voting securities.

(2) Represents 7,979,144 Series B preferred shares purchased by RA Capital Healthcare Fund, L.P., 3,131,524 Series B preferred shares purchased by RA Capital Nexus Fund, L.P. and 1,415,428 Series B preferred shares purchased by Blackwell Partners LLC – Series A. Derek DiRocco serves as a member of our board of directors and is an affiliate of RA Capital Management, L.P., of which RA Capital Healthcare Fund, L.P. RA Capital Nexus Fund, L.P. and Blackwell Partners LLC – Series A are affiliated entities. Entities affiliated with RA Capital Management, L.P. hold more than 5% of our voting securities.

(3) Rogier Rooswinkel serves as a member of our board of directors and is an affiliate of Forbion IV Management B.V., of which Forbion Capital Fund IV Cooperatief U.A. is an affiliated fund. Forbion Capital Fund IV Cooperatief U.A. holds more than 5% of our voting securities.

(4) Represents 2,392,748 Series B preferred shares purchased by Baker Brothers Life Sciences, L.P. and 216,856 Series B preferred shares purchased by 667, L.P. Entities affiliated with Baker Bros. Advisors LP hold more than 5% of our voting securities.

Series A financing

On May 24, 2016, we agreed to sell up to 13,250,000 of our Series A preferred shares at a price per share of £1.00 for aggregate gross proceeds of £13,250,000 pursuant to a subscription and shareholders' agreement, or the Original Series A Agreement. This financing was structured in four tranches. The first tranche of this financing closed in May 2016, at which time we sold 3,057,692 Series A preferred shares for aggregate gross proceeds £3,057,692. On March 29, 2017, we entered into a subscription and shareholders' agreement which terminated the Original Series A Agreement, or the Second Series A Agreement. Pursuant to the Second Series A Agreement, we agreed to sell up to 10,192,308 of our Series A preferred shares at a price per share of £1.00 for aggregate gross proceeds of £10,192,308 in three tranches. The first tranche pursuant to the Second Series A Agreement closed in September, 2017, at which time we sold 1,019,231 Series A preferred shares for an aggregate cash subscription price of £1,019,231.

On July 27, 2017, we entered into a subscription agreement, pursuant to which we agreed to sell up to 15,000,000 of our Series A preferred shares at a price per share of £1.00 for aggregate gross proceeds of approximately £15 million structured in three tranches. The first tranche of the financing closed in July 2017, when we sold 3,200,000 Series A preferred shares for aggregate gross proceeds of £3,200,000. The second tranche of the financing closed in August 2018, when we sold 1,800,000 Series A preferred shares for an aggregate cash subscription price of £1,800,000.

On October 11, 2018, the second tranche that remained outstanding under the Second Series A Agreement and the third tranche that remained outstanding under the Third Series A Agreement were restructured into two tranches. The first tranche of the restructured financing closed in November 2018, when we sold 8,733,077 Series A preferred shares for aggregate gross proceeds of £8,733,077. The second tranche of the restructured financing closed in June 2019, when we sold 10,400,000 for aggregate gross proceeds of £10,400,000.

The following table summarizes the participation in the Series A financing by our directors, executive officers and holders of more than 5% of our share capital, or their respective affiliates:

Shareholder	Series A preferred shares		Total purchase price
Syncona Portfolio Limited[1]	25,584,909	£	25,584,909.00
Total	25,584,909	£	25,584,909.00

(1) Martin Murphy will resign immediately prior to the effectiveness of the registration statement of which this prospectus is a part and is the Chief Executive Officer of Syncona Investment Management Limited, an affiliate of Syncona Portfolio Limited, which holds more than 5% of our voting securities."

Agreements with shareholders

In connection with the subscriptions of our preferred shares, we entered into subscription and shareholder agreements containing information rights, among other things, with certain holders of our preferred shares. These shareholder agreements will terminate upon the consummation of this offering, except for the registration rights granted under our registration rights agreement, as more fully described in "Description of share capital and articles of association—Registration rights."

Pursuant to the Series A shareholder agreement, Syncona companies, or Syncona, including Syncona Portfolio Limited, provided us with the services of up to two directors appointed to our board of directors, from March 2017 to September 2019. Pursuant to the shareholder agreement, if Syncona appointed a director or directors to our board of directors, we were obligated to pay Syncona £20,000 annually per such director appointed to our board or directors. In connection with these appointments, we paid Syncona less than £0.1 million and less than £0.1 million for the years ended December 31, 2018 and 2019, respectively. The Series A shareholder agreement terminated in September 2019, upon the adoption of our Series B shareholder agreement.

Agreement with Syncona Management

We entered into a services agreement with Syncona Management LLP in May 2016, which was assigned in December 2016 to Syncona Investment Management Limited, or Syncona Management. Syncona Management is a management services entity affiliated with Syncona. Pursuant to the services agreement, Syncona Management provided us with certain services, including the services of Chris Ashton, as our former Chief Executive Officer, from May 2016 to December 2017, Iraj Ali, as our Chief Executive Officer, from January 2018 to December 2018. In connection with these services, we paid Syncona Management less than £0.2 million for the year ended December 31, 2018 and £0 for each of the years ended December 31, 2019 and 2020. Syncona holds more than 5% of our voting securities.

Agreements with our senior management and directors

We have entered into employment agreements with certain members of our management and service agreements with our non-executive directors. These agreements contain customary provisions and representations, including confidentiality, non-competition, non-solicitation and inventions assignment undertakings by the executive officers and non-executive directors. The enforceability of the non-competition provisions may be limited under applicable law.

Indemnification agreements

We intend to enter into a deed of indemnity with each of our directors, members of our senior management and other officers prior to the completion of this offering. These agreements and our Articles of Association that will

be in effect upon completion of this offering require us to indemnify our directors, members of our senior management and other officers to the fullest extent permitted by law.

Related party transactions policy

Prior to the completion of this offering, we intend to adopt a party transactions policy. Pursuant to this policy, the audit and risk committee has the primary responsibility for reviewing and approving or disapproving “related party transactions,” which are transactions between us and related parties in which the related party has a direct or indirect material interest. For purposes of this policy, a related party will be defined as a director, executive director, nominee for director, or greater than 5% beneficial owner of any class of our voting securities, and their immediate family members.

Principal shareholders

The following table sets forth information with respect to the beneficial ownership of our ordinary shares as of February 28, 2021, after giving effect to our corporate reorganization, for:

- each person, or group of affiliated persons, known by us to beneficially own 5% or more of our outstanding ordinary shares;
- each of our directors and executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include ordinary shares that can be acquired within 60 days of February 28, 2021 through the exercise of any option, warrant or other right. Percentage ownership calculations before the offering are based on 30,853,489 ordinary shares outstanding as of February 28, 2021, after giving effect to our corporate reorganization.

The percentage of ordinary shares beneficially owned after completion of this offering is based on 40,603,489 ordinary shares outstanding after this offering, including 9,750,000 ordinary shares in the form of ADSs issued in connection with this offering, at the initial public offering price of $18.00 per ADS. Ordinary shares that a person has the right to acquire within 60 days of February 28, 2021 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all board members and executive officers as a group.

Except as otherwise indicated, all persons listed below have sole voting and investment power with respect to the ordinary shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose.

As of February 28, 2021, 12,219,723 ordinary shares, representing 39.6% of our issued and outstanding ordinary shares, were held by one U.S. shareholder of record.

Except as otherwise indicated in the table below, addresses of the directors, executive officers and named beneficial owners are c/o Achilles Therapeutics plc, 245 Hammersmith Road, London, W6 8PW, United Kingdom.

		Percentage of ordinary shares beneficially owned	
Name of beneficial owner	**Number of ordinary shares beneficially owned before offering**	**Before offering**	**After offering**
5% or Greater Shareholders:			
Syncona Portfolio Limited[1]	11,086,909	35.9%	27.3%
Entities Affiliated with RA Capital Management, L.P.[2]	3,625,799	11.8%	8.9%
Forbion Capital Fund IV Cooperatief U.A.[3]	2,115,050	6.9%	5.2%
Entities Affiliated with Baker Bros. Advisors LP[4]	3,232,733	10.5%	8.0%

Name of beneficial owner	Number of ordinary shares beneficially owned before offering	Percentage of ordinary shares beneficially owned: Before offering	Percentage of ordinary shares beneficially owned: After offering
Senior Management and Directors:			
Iraj Ali, Ph.D.(5)	844,631	2.7%	2.1%
Robert Coutts(6)	132,657	*	*
Karl Peggs, M.D.(7)	453,686	1.5%	1.1%
Sergio Quezada, Ph.D.(8)	302,860	1.0%	*
Edwin Moses, Ph.D.(9)	226,250	*	*
Martin Murphy, Ph.D.(1)	—	—	—
Michael F. Giordano, M.D.(10)	76,097	*	*
Carsten Boess(11)	12,511	*	*
Derek DiRocco, Ph.D.	—	—	—
Rogier Rooswinkel, Ph.D.(3)	2,115,050	6.9%	5.2%
All current executive officers and directors as a group (10 persons)	4,163,742	13.5%	10.3%

* Represents beneficial ownership of less than one percent.

(1) Consists of 11,086,909 ordinary shares issuable upon exchange of (i) 25,584,909 Series A Preferred Shares and 18,313,675 Series B Preferred Shares. Syncona Portfolio Limited is a controlled subsidiary of Syncona Holdings Limited, which in turn is a controlled subsidiary of Syncona Limited. Each of Syncona Holdings Limited and Syncona Limited may be deemed to have voting and dispositive power over the shares held by Syncona Portfolio Limited. Investment and voting decisions with respect to these shares are made by Syncona Portfolio Limited acting upon the recommendation of an investment committee of Syncona Investment Management Limited, also a subsidiary of Syncona Holdings Limited. The members of this investment committee consist of Nigel Keen, Martin Murphy and Chris Hollowood. Martin Murphy will resign immediately prior to the effectiveness of the registration statement of which this prospectus is a part. The address for both Syncona Investment Management Limited and Syncona Portfolio Limited is Arnold House, PO Box 273, St Julian's Avenue, St Peter Port, Guernsey GY1 3RD.

(2) Consists of 3,625,799 ordinary shares issuable upon exchange of (i) 7,979,144 Series B Preferred Shares and 1,252,330 Series C Preferred Shares held by RA Capital Healthcare Fund, L.P., or RA Capital Healthcare, (ii) 3,131,524 Series B Preferred Shares and 457,563 Series C Preferred Shares held by RA Capital Nexus Fund, L.P., or RA Capital Nexus, and (iii) 1,415,428 Series B Preferred Shares and 120,358 Series C Preferred Shares held by Blackwell Partners LLC - Series A, or Blackwell. RA Capital Management, L.P., or Adviser, is the investment manager for RA Capital Healthcare, RA Capital Nexus and Blackwell. The general partner of the Adviser is RA Capital Management GP, LLC, or Adviser GP, of which Dr. Peter Kolchinsky and Mr. Rajeev Shah are the managing members. The Adviser, the Adviser GP, Dr. Kolchinsky, and Mr. Shah may be deemed to have voting and investment power over the shares held of record by RA Capital Healthcare, RA Capital Nexus, and Blackwell. The Adviser, the Adviser GP, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address for both RA Capital Healthcare and RA Capital Nexus is 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116. The address for Blackwell Partners LLC is 280 S Mangum Street, Suite 210, Durham, NC 27701.

(3) Consists of 2,115,050 ordinary shares issuable upon exchange of 7,306,890 Series B Preferred Shares and 1,067,646 Series C Preferred Shares held by Forbion Fund IV Cooperatief U.A. Forbion Capital Fund IV Cooperatief U.A, or FCF IV. Forbion IV Management B.V., or Forbion Management, the director of FCF IV, may be deemed to have voting and dispositive power over the shares held by FCF IV. Investment decisions with respect to the common shares held by FCF IV can be made by its investment committee which may delegate such powers to the authorized representatives of Forbion Management. Mssrs. Slootweg, van Osch, Mulder, van Houten, van Deventer, Reithinger, Kersten and Rooswinkel and Boorsma are partners of Forbion Management, which acts as the investment advisor to the directors of FCF IV. Rogier Rooswinkel, a member of our board of directors, is a partner of Forbion Management and a member of the investment committee of Forbion Management. Forbion Management disclaims beneficial ownership of the shares, except to the extent of his pecuniary interest therein. The address of FCFIV and Forbion Management are Gooimeer 2-35, 1411 DC Naarden, The Netherlands.

(4) Consists of 3,232,733 ordinary shares issuable upon exchange of (i) 2,392,748 Series B Preferred Shares and 9,412,141 Series C Preferred Shares held by Baker Brothers Life Sciences, L.P. and (ii) 216,856 Series B Preferred Shares and 778,234 Series C Preferred Shares held by 667, L.P. We refer to 667, L.P. and Baker Brothers Life Sciences, L.P. together as the Baker Entities. Baker Bros. Advisors LP is the investment advisor of the Baker Entities and has sole voting and dispositive power with respect to the ordinary shares held by the Baker Entities. Baker Bros. Advisors (GP) LLC is the sole general partner of Baker Bros. Advisors LP. The managing members of Baker Bros. Advisors (GP) LLC are Julian C. Baker and Felix J. Baker and, as such, they may be deemed to have voting and dispositive power with respect to the ordinary shares held by the Baker Entities. Julian C. Baker and Felix J. Baker disclaim beneficial ownership of the ordinary shares held by the Baker Entities except to the extent of their pecuniary interest. The address for both Baker Brothers Life Sciences, L.P. and 667, L.P. is 860 Washington Street, 3rd Floor, New York, New York 10014.

(5) Consists of 844,633 ordinary shares issuable upon exchange of 42,020 D Ordinary Shares, 9,900 E Ordinary Shares, 55,142 F Ordinary Shares, 30,848 G Ordinary Shares, 26,321 H Ordinary Shares, 14,806 I Ordinary Shares, 82,251 J Ordinary Shares, 294,528 L Ordinary Shares, 144,741 M Ordinary Shares and 144,076 N Ordinary Shares.

(6) Consists of 132,657 ordinary shares issuable upon exchange of 1,802 D Ordinary Shares, 425 E Ordinary Shares, 2,364 F Ordinary Shares, 1,323 G Ordinary Shares, 1,128 H Ordinary Shares, 635 I Ordinary Shares, 3,526 J Ordinary Shares, 38,430 L Ordinary Shares, 12,924 M Ordinary Shares and 70,100 N Ordinary Shares.

(7) Consists of 453,686 ordinary shares issuable upon exchange of 36,323 B Ordinary Shares, 12,984 E Ordinary Shares, 44,664 F Ordinary Shares, 27,873 G Ordinary Shares, 3,575 H Ordinary Shares, 2,011 I Ordinary Shares, 11,172 J Ordinary Shares, 39,703 L Ordinary Shares, 197,992 M Ordinary Shares and 77,389 N Ordinary Shares.

(8) Consists of 302,860 ordinary shares issuable upon exchange of 36,326 B Ordinary Shares, 12,984 E Ordinary Shares, 44,664 F Ordinary Shares, 27,873 G Ordinary Shares, 3,575 H Ordinary Shares, 2,011 I Ordinary Shares, 11,172 J Ordinary Shares, 89,331 L Ordinary Shares, 23,263 M Ordinary Shares and 51,661 N Ordinary Shares.

(9) Consists of 226,250 ordinary shares issuable upon exchange of 11,261 D Ordinary Shares, 2,652 E Ordinary Shares, 14,770 F Ordinary Shares, 8,263 G Ordinary Shares, 7,051 H Ordinary Shares, 3,966 I Ordinary Shares, 22,032 J Ordinary Shares, 78,892 L Ordinary Shares, 38,771 M Ordinary Shares and 38,592 N Ordinary Shares.

(10) Consists of 76,097 ordinary shares issuable upon exchange of (i) 7,507 D Ordinary Shares, 1,768 E Ordinary Shares, 9,847 F Ordinary Shares, 5,509 G Ordinary Shares, 4,700 H Ordinary Shares, 2,644 I Ordinary Shares and 14,688 J Ordinary Shares; and (ii) options to purchase 20,818 L Ordinary Shares and 8,616 M Ordinary shares exercisable within 60 days of February 28, 2021.

(11) Consists of 12,511 ordinary shares issuable upon exchange of options to purchase 12,511 M Ordinary Shares exercisable within 60 days of February 28, 2021.

Description of share capital and articles of association

The following describes our issued share capital, summarizes the material provisions of our new articles of association that will be adopted with effect from the completion of this offering, or Articles, and highlights certain differences in corporate law in the United Kingdom and the United States.

We were incorporated pursuant to the laws of England and Wales as Achilles TX Limited in November 2020. In November 2020, following our incorporation, we incorporated Achilles Therapeutics Holdings Limited pursuant to the laws of England and Wales as our wholly owned subsidiary. Achilles Therapeutics Limited was incorporated under the laws of England and Wales in May 2016, under the name AchillesTX Limited. In October 2016, AchillesTX Limited changed its name to Achilles Therapeutics Limited. In January 2021, Achilles Therapeutics Limited changed its name to Achilles Therapeutics UK Limited. Prior to the completion of our corporate reorganization, Achilles Therapeutics UK Limited, had one wholly-owned subsidiary, Achilles Therapeutics US, Inc.

Pursuant to the terms of a corporate reorganization effected in December 2020, all shareholders of Achilles Therapeutics UK Limited (then named Achilles Therapeutics Limited) exchanged each of the shares held by them for equivalent shares (both in terms of number and class but with a nominal value per share of £1.20) in Achilles TX Limited and, as a result: (i) the shareholders of Achilles Therapeutics UK Limited became shareholders in Achilles TX Limited; (ii) Achilles Therapeutics UK Limited became a wholly owned subsidiary of Achilles TX Limited; and (iii) Achilles Therapeutics US, Inc. became an indirect, wholly-owned subsidiary of Achilles TX Limited. In February 2021, Achilles TX Limited was re-registered as a public limited company and was renamed as Achilles Therapeutics plc. Following this, Achilles Therapeutics plc sold the entire issued share capital of Achilles Therapeutics UK Limited to Achilles Therapeutics Holdings Limited for two newly issued ordinary shares of £1.00 each in the capital of Achilles Therapeutics Holdings Limited and, as a result, Achilles Therapeutics UK Limited became a wholly owned subsidiary of Achilles Therapeutics Holdings Limited and Achilles Therapeutics US, Inc. became an indirect, wholly-owned subsidiary of Achilles Therapeutics Holdings Limited and, as a result, Achilles Therapeutics US, Inc. became a wholly-owned subsidiary of Achilles Therapeutics Holdings Limited. Following this, Achilles Therapeutics UK Limited distributed the entire issued share capital of Achilles Therapeutics US, Inc. to Achilles Therapeutics Holdings Limited. Upon completion of this offering we will adopt the Articles (which are in a form appropriate for a public limited company listed on Nasdaq) and reorganize our share capital to two classes of ordinary shares: ordinary shares and Class A ordinary shares, each with a nominal value of £0.001. See “Corporate reorganization” beginning on page 107 for more information.

We are registered in England and Wales under number 13027460 and our registered office is at 245 Hammersmith Road, London, W6 8PW, United Kingdom.

As part of our corporate reorganization, certain shareholder resolutions will be required to be passed by our shareholders prior to the completion of this offering. These will include resolutions for the:

- reorganization of our share capital in preparation for the completion of this offering, including certain steps to undertake our reverse share split. See “Corporate reorganization” for more information;
- the adoption of our new Articles See “Key provisions of our post-IPO articles of association” below;
- general authorization of our directors for purposes of section 551 of the Companies Act 2006 to issue our shares and grant rights to subscribe for or convert any securities into our shares up to a maximum aggregate nominal amount of £0.001 for a period of five years; and
- empowering of our directors pursuant to section 570 of the Companies Act 2006 to issue equity securities for cash pursuant to the section 551 authority referred to above as if the statutory preemption rights under section 561(1) of the Companies Act 2006 did not apply to such allotments.

Issued share capital

As of February 28, 2021, the issued share capital of Achilles Therapeutics plc comprised of 2,000,000 B ordinary shares, 615,553 D ordinary shares, 316,461 E ordinary shares, 1,293,890 F ordinary shares, 768,221 G ordinary shares, 351,304 H ordinary shares, 191,174 I ordinary shares, 1,036,489 J ordinary shares, 4,749,844 L ordinary shares, 3,192,705 M ordinary shares, 3,935,026 N ordinary Shares, 28,250,000 Series A preferred shares, 52,192,070 Series B preferred shares, 24,412,603 Series C preferred shares and 104,359 deferred shares, each with a nominal value of £0.001 per share.

As of the completion of the corporate reorganization, our reverse share split and this offering, in each case, based on the initial public offering price of $18.00 per ADS, our issued share capital will be 40,603,489 ordinary shares. The fractional entitlements resulting from the reverse share split will be consolidated into one deferred share of £0.001 and later transferred to us for no consideration and subsequently cancelled.

Ordinary shares

Our ordinary shares will have the rights and restrictions described in “Key provisions of our post-IPO articles of association” below. In accordance with our Articles, the following summarizes the rights of holders of our ordinary shares:

- each holder of our ordinary shares is entitled to one vote per ordinary share on all matters to be voted on by shareholders generally;
- the holders of our ordinary shares shall be entitled to receive notice of, attend, speak and vote at our general meetings and receive a copy of every report, accounts, circular or other documents sent out by us to our shareholders; and
- holders of our ordinary shares are entitled to receive such dividends as are recommended by our directors and declared by our shareholders.

Class A ordinary shares

Our Class A ordinary shares will have the rights and restrictions described in “—Key provisions of our post-IPO articles of association” below. In accordance with our Articles, the following summarizes the rights of holders of our Class A ordinary shares:

- the Class A ordinary shares are identical to our ordinary shares in all respects, save that the holders of our Class A ordinary shares will not be entitled to vote on shareholder matters; and
- holders of our Class A ordinary shares will have the right to convert each such Class A ordinary share into one ordinary share at the holder’s election, unless, as a result of such conversion, the holder and its affiliates would own more than 9.99% of the combined voting power of our outstanding share capital, and subject to certain additional restrictions as more particularly described in our Articles. A Class A ordinary share, once converted to an ordinary share, may not be converted back into to a Class A ordinary share.

Deferred shares

Our deferred shares, created as part of our reverse share split, have the rights and restrictions set out in our Articles, to be adopted with effect from the completion of this offering. In summary:

- holders of our deferred shares are not entitled to vote on shareholder matters, or receive notice of, attend, speak or vote at our general meetings or receive copies of our reports, accounts, circulars or other documents sent to our shareholders;

- holders of our deferred shares shall not be entitled to receive any dividends or participation in our profits;
- in the event of a winding up or our liquidation, the deferred shares shall only participate in our surplus assets to the extent that each ordinary share has first received the amount paid up on that ordinary shares plus the sum of £1,000,000 in respect of each ordinary share and Class A ordinary share; and
- the deferred shares shall not be transferable, save as in accordance with the limited circumstances set out in our Articles.

Shareholder register

We are required by the Companies Act 2006 to keep a register of our shareholders. Under English law, the ordinary shares and Class A ordinary shares are deemed to be issued when the name of the shareholder is entered in our share register. The share register therefore is prima facie evidence of the identity of our shareholders, and the shares that they hold. The share register generally provides limited, or no, information regarding the ultimate beneficial owners of our ordinary shares and Class A ordinary shares. Our share register is maintained by our registrar, Computershare Investor Services plc. Our share register will also show the details of the holder(s) of our deferred shares.

Holders of the ADSs will not be treated as our shareholders and their names will therefore not be entered in our share register. The depositary, the custodian or their nominees will be the holder of the ordinary shares and Class A ordinary shares underlying the ADSs. Holders of the ADSs have a right to receive the ordinary shares or Class A ordinary shares underlying their ADSs. For discussion on the ADSs and ADS holder rights, see “Description of American depositary shares” in this prospectus.

Under the Companies Act 2006, we must enter an allotment of shares in our share register as soon as practicable and in any event within two months of the allotment. We will perform all procedures necessary to update the share register to reflect the ordinary shares or Class A ordinary shares being sold in this offering, including updating the share register with the number of ordinary shares or Class A ordinary shares to be issued to the depositary upon the completion of this offering. We are also required by the Companies Act 2006 to register a transfer of shares (or give the transferee notice of and reasons for refusal as the transferee may reasonably request) as soon as practicable and in any event within two months of receiving notice of the transfer.

We, any of our shareholders or any other affected person may apply to the court for rectification of the share register if:

- the name of any person, without sufficient cause, is wrongly entered in or omitted from our share register; or
- there is a default or unnecessary delay in entering on the register the fact of any person having ceased to be a member or on which we have a lien, provided that such delay does not prevent dealings in the shares taking place on an open and proper basis.

Registration rights

Upon the completion of this offering, the holders of our ordinary shares issuable upon the conversion of our preferred shares, Series A preferred shares, Series B preferred shares and Series C preferred shares, will be entitled to rights with respect to the registration of these securities under the Securities Act. These rights are provided under the terms of a registration rights agreement between us and holders of our shares, or the registration rights agreement. The registration rights agreement includes demand registration rights, short-form registration rights and piggyback registration rights.

Demand registration rights

Beginning 180 days after the effective date of this registration statement, the holders of our ordinary shares issuable upon the conversion of preferred shares, as well as Cancer Research Technology Limited and its affiliates, are entitled to demand registration rights. Under the terms of the registration rights agreement, we will be required, upon the written request of holders of a majority of these securities to file a registration statement and use best efforts to effect the registration of all or a portion of these shares for public resale. We are required to effect only two registrations pursuant to this provision of the registration rights agreement.

Short-form registration rights

Pursuant to the registration rights agreement, if we are eligible to file a registration statement on Form F-3 or Form S-3, upon the written request of holders of these securities at an aggregate offer price of at least $10.0 million, we will be required to effect a registration of such shares. We are required to effect only two registrations in any twelve (12) month period pursuant to this provision of the registration rights agreement. The right to have such shares registered on Form F-3 or Form S-3 is further subject to other specified conditions and limitations.

Piggyback registration rights

Pursuant to the registration rights agreement, if we register any of our securities either for our own account or for the account of other shareholders, other than in connection with our initial public offering or a registration for any employee benefit plan, corporate reorganization, or the offer or sale of debt securities, the holders of these shares are entitled to include their shares in the registration.

Indemnification

Our registration rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expiration of registration rights

The registration rights granted under the registration rights agreement will terminate in the event of a share sale, as defined in our Articles of Association.

Key provisions of our post-IPO articles of association

Our Articles were approved by our shareholders on March 15, 2021 and will be adopted upon the completion of this offering. A summary of certain key provisions of our Articles is set out below. The summary below is not a complete copy of the terms of our Articles. For further information, please refer to the full version of our Articles filed as an exhibit to the registration statement of which this prospectus forms a part.

Our Articles contain no specific restrictions on our purpose and therefore, by virtue of section 31(1) of the Companies Act 2006, our purpose is unrestricted.

Our Articles contain, among other things, provisions to the following effect:

Share capital

Our share capital will consist of ordinary shares, Class A ordinary shares and deferred shares. We may, in accordance with section 551 of the Companies Act 2006, be authorized by our shareholders to generally and

unconditionally allot our shares or grant rights to subscribe for or convert any security into our shares by way of an ordinary resolution. We may issue these shares with such rights and restrictions as may be determined by the ordinary resolution, or if no ordinary resolution is passed or so far as the resolution does not make specific provision, as our board of directors may determine, including shares which are to be redeemed, or are liable to be redeemed at our option or the option of the holder of such shares. However, an amendment to our Articles, which requires the passing of a special resolution, will be required to issue any shares other than ordinary shares or Class A ordinary shares.

Voting

The holders of our ordinary shares have the right to receive notice of, and to attend and vote at, our general meetings. Subject to any other provisions of our Articles and without prejudice to any special rights, privileges or restrictions as to voting attached to any shares forming part of our share capital, each holder of our ordinary shares who is present in person (or, in the case of a corporation, by representative) or by proxy at a general meeting will vote on a poll, and as a result will have one vote in respect of every share held by him or her.

For the avoidance of doubt, the holders of our Class A ordinary shares will not have the right to vote on our shareholder matters.

Variation of rights

Whenever our share capital is divided into different classes of shares, and save as where explicitly provided for in our Articles, the special rights attached to any class may be varied or abrogated either: (i) with the consent in writing of the holders of not less than three-quarters in nominal value of the issued shares of that class (excluding any shares of that class held as treasury shares); or (ii) with the authority of a special resolution passed at a general meeting of the holders of the shares of that class, and may be so varied and abrogated while we are a going concern.

Dividends

We may, subject to the provisions of the Companies Act 2006 and our Articles, by ordinary resolution from time to time declare dividends to be paid to shareholders according to their respective rights and interests in our profits, however no dividend shall exceed the amount recommended by our board of directors.

Subject to the provisions of the Companies Act 2006, our board of directors may declare interim dividends (including any dividend at a fixed rate) as appears to our board of directors to be justified by our profits available for distribution. Except as provided otherwise by the rights attached to shares, all dividends may be declared or paid in any currency. Our board of directors may decide the rate of exchange for any currency conversions that may be required and how any costs involved in such conversions are to be met.

All dividends that remain unclaimed after a period of twelve years from the date after they were first declared or became due for payment shall, if our board of directors so resolves, be forfeited and shall cease to remain owing by us.

Unless otherwise provided by the rights attached to the share, no dividend or other monies payable by us or in respect of a share shall bear interest as against us.

Liquidation

On a distribution of assets on a liquidation, dissolution or winding-up the surplus assets remaining after payment of our liabilities shall be distributed among the holders of our ordinary shares and Class A ordinary

shares in proportion to the number of our ordinary shares and/or Class A ordinary shares held, irrespective of the amount paid or credited as paid on any share.

Transfer of ordinary shares and Class A ordinary shares

Subject to the restrictions set out in our Articles, each shareholder may transfer all or any of his shares which are in certificated form by means of an instrument of transfer in any usual form or in any other form which our board of directors may approve. Each shareholder may transfer all or any of his shares which are in uncertificated form by means of a "relevant system" (i.e., the CREST System) in such manner provided for, and subject as provided in, the uncertificated securities rules (as defined in our Articles of Association) (i.e., the CREST Regulations).

Our board of directors may, in its absolute discretion, refuse to register a transfer of shares in certificated form unless:

(i) it is for a share which is fully paid up;

(ii) it is for a share upon which we have no lien;

(iii) it is only for one class of share;

(iv) it is in favor of a single transferee or no more than four joint transferees;

(v) it is duly stamped or is duly certificated or otherwise shown to the satisfaction of our board of directors to be exempt from stamp duty; and

(vi) it is delivered for registration to our registered office (or such other place as our board of directors may determine), accompanied (except in the case of a transfer by a person to whom we are not required by law to issue a certificate and to whom a certificate has not been issued or in the case of a renunciation) by the certificate for the shares to which it relates and such other evidence as our board of directors may reasonably require to prove the title of the transferor (or person renouncing) and the due execution of the transfer or renunciation by such transferor or, if the transfer or renunciation is executed by some other person on his behalf, the authority of that person to do so.

Our board of directors shall not refuse to register any transfer of partly paid shares in respect of which ADSs are admitted to Nasdaq on the grounds that they are partly paid shares in circumstances where such refusal would prevent dealings in such shares from taking place on an open and proper basis.

Our board of directors may refuse to register a transfer of uncertificated shares in any circumstances that are allowed or required by the uncertificated securities rules and the relevant system (in each case as defined in our Articles of Association) (i.e., the CREST Regulations and the CREST System).

Allotment of shares and preemption rights

Subject to the Companies Act 2006 and to any rights attached to existing shares, any share may be issued with or have attached to it such rights and restrictions as we may by ordinary resolution determine, or if no ordinary resolution has been passed or so far as the resolution does not make specific provision, as our board of directors may determine (including shares which are to be redeemed, or are liable to be redeemed at our option or the holder of such shares). However, an amendment to our Articles, which requires the passing of a special resolution, will be required to issue any shares other than ordinary shares or Class A ordinary shares.

In accordance with section 551 of the Companies Act 2006, our board of directors may be generally and unconditionally authorized to exercise all of our powers to allot shares or grant rights to subscribe for or to

convert any security into shares up to an aggregate nominal amount equal to the amount stated in the relevant ordinary resolution authorizing such allotment. The authorities referred to above were included in the ordinary resolution of our shareholders passed on March 15, 2021 and remain in force at the date of this prospectus.

Pursuant to section 561 of the Companies Act 2006, shareholders are granted preemptive rights when new shares are issued for cash. However, it is possible for our Articles, or shareholders at a general meeting representing at least 75% of our ordinary shares present (in person or by proxy) and eligible to vote at that general meeting, to disapply these preemptive rights. Such a disapplication of preemption rights may be for a maximum period of up to five years from the date of the shareholder resolution. In either case, this disapplication would need to be renewed by our shareholders upon its expiration (i.e., at least every five years).

On March 15, 2021, our shareholders approved the disapplication of preemptive rights for a period of five years from the date of approval by way of a special resolution of our shareholders. This included the disapplication of preemption rights in relation to the allotment of our ordinary shares in connection with this offering. This disapplication will need to be renewed upon expiration (i.e., at least every five years) to remain effective, but may be sought more frequently for additional five-year terms (or any shorter period).

Alteration of share capital

We may, in accordance with the Companies Act 2006, by ordinary resolution consolidate all or any of our share capital into a smaller number of shares of a larger nominal amount than our existing shares, or cancel any shares which, at the date of that ordinary resolution, have not been taken or agreed to be taken by any person and diminish the amount of our share capital by the amount of shares so cancelled, or sub-divide our shares, or any of them, into shares of a smaller nominal amount than our existing shares.

We may, in accordance with the Companies Act 2006, reduce or cancel our share capital or any capital redemption reserve or share premium account in any manner and with and subject to any conditions, authorities and consents required by law.

Board of directors

Appointment of directors

Unless otherwise determined by ordinary resolution, the number of directors (other than any alternate directors) shall not be less than two and not more than fifteen.

Subject to our Articles and the Companies Act 2006, we may by ordinary resolution appoint a person who is willing to act as a director and our board of directors shall have power at any time to appoint any person who is willing to act as a director, in both cases either to fill a vacancy or as an addition to the existing board of directors.

Our Articles provide that, our board of directors will consist of one class of directors constituting our entire board of directors. At each annual general meeting, the successors of directors will be elected to serve from the time of election and qualification until the subsequent annual meeting following election. Directors of the class retiring at an annual general meeting shall be eligible for re-appointment by ordinary resolution at such annual general meeting.

At every subsequent annual general meeting any director who has been appointed by our board of directors since the last annual general meeting, must retire from office and may offer themselves for reappointment by the shareholders by ordinary resolution.

Proceedings of directors

Subject to the provisions of our Articles, our board of directors may regulate their proceedings as they deem appropriate. A director may, and the secretary at the request of a director shall, call a meeting of the directors.

The quorum for a meeting of our board of directors shall be fixed from time to time by decision of the board of directors, but it must never be fewer than two directors (or duly appointed alternative directors).

Questions and matters requiring resolution arising at a meeting shall be decided by a majority of votes of the participating directors, with each director having one vote. Where there are an even number of directors appointed to our board, in the case of an equality of votes, the chairperson of the board will have a second or casting vote (unless the chairperson is not entitled to vote on the resolution in question).

Directors' compensation

Directors shall be entitled to receive such fees as our board of directors shall determine for their services and for any other service which they undertake on our behalf provided that the aggregate fees payable to the directors must not exceed $500,000 per annum or such higher amount as may from time to time be decided by ordinary resolution. Directors shall be entitled to reasonable additional remuneration (whether by way of salary, commission, participation in profits or otherwise) for any special duties or services performed or rendered to us, as determined by our board of directors, and in respect of any employment or executive office. The directors shall also be entitled to be paid reasonable travel, hotel and other expenses properly incurred by them in connection with their attendance at meetings of shareholders or class meetings, board of director or committee meetings or otherwise in connection with the performance of their duties as directors.

Conflicts of interest

Our board of directors may, in accordance with the requirements in our Articles, authorize any matter proposed to them by any director which would, if not authorized, involve a director breaching his duty under the Companies Act 2006, to avoid conflicts of interests.

A director seeking authorization in respect of such conflict shall declare to our board of directors the nature and extent of his interest in a conflict as soon as is reasonably practicable. The director shall provide our board of directors with such details of the matter as are necessary for our board of directors to decide how to address the conflict together with such additional information as may be requested by our board of directors.

Any authorization by our board of directors will be effective only if:

(i) to the extent permitted by the Companies Act 2006, the matter in question shall have been proposed by any director for consideration in the same way that any other matter may be proposed to the directors under the provisions of our Articles;

(ii) any requirement as to the quorum for consideration of the relevant matter is met without counting the conflicted director and any other conflicted director; and

(iii) the matter is agreed to without the conflicted director voting or would be agreed to if the conflicted director's and any other interested director's vote is not counted.

Permitted interests

Under our Articles, certain transactions which would otherwise give rise to a conflict are considered to be permitted interests of our directors. In the event that these permitted interests arise, the director in question

will still count towards the quorum requirements of the relevant meeting and be entitled to vote on resolutions relating to such permitted interests, including but not limited to the following matters:

(i) the giving by such director of any security, guarantee or indemnity for any money or any liability which such director, or any other person, has lent or obligations such director or any other person has undertaken at the request, or for the benefit, of us or any of our subsidiary undertakings;

(ii) the giving of any security, guarantee or indemnity to any other person for a debt or obligation which is owed by us or any of our subsidiary undertakings, to that other person if such director has taken responsibility for some or all of that debt or obligation. Such director can take this responsibility by giving a guarantee, indemnity or security;

(iii) a proposal or contract relating to an offer of any shares or debentures or other securities for subscription or purchase by us or any of our subsidiary undertakings, if such director takes part because such director is a holder of shares, debentures or other securities, or if such director takes part in the underwriting or sub-underwriting of the offer;

(iv) any arrangement for the benefit of our employees or the employees of any of our subsidiary undertakings which only gives such director benefits which are also generally given to employees to whom the arrangement relates;

(v) any arrangement involving any other company if such director (together with any person connected with such director) has an interest of any kind in that company (including an interest by holding any position in that company or by being a shareholder of that company). This does not apply if such director knows that that such director has a relevant interest in a company. A company shall be deemed to be one in which such director has a relevant interest if and so long as (but only if and so long as) such director is to their knowledge (either directly or indirectly) the holder of or beneficially interested in one percent or more of any class of the equity share capital of that company (calculated exclusive of any shares of that class in that company held as treasury shares) or of the voting rights available to shareholders of that company;

(vi) a contract relating to insurance which we can buy or renew for the benefit of our directors or a group of people which includes our directors; and

(vii) a contract relating to a pension, superannuation or similar scheme or a retirement, death, disability benefits scheme or employees' share scheme which gives such director benefits which are also generally given to the employees to whom the scheme relates.

A director is not permitted to vote (or count towards the quorum) on a resolution relating to their own appointment or the settlement or variation of the terms of their appointment to an office or place of profit with us, or any other company in which we have an interest.

Directors' indemnity

Subject to the provisions of the Companies Act 2006, all of our directors, secretaries or other officers (other than an auditor) shall be indemnified against all any loss or liability incurred by them or in connection with their duties or powers in relation to us or any of our subsidiaries or any pension fund or employee's shares scheme of us or any of our subsidiaries or in relation to our activities as trustee of any occupational pension scheme which is operated by us from time to time. This indemnity includes any liability incurred by a director in defending any civil or criminal proceedings in which judgment is given in that director's favor or the director is acquitted or the proceedings are otherwise disposed of without any finding or admission of any material breach of duty on his part and we may provide the director with funds to meet expenditure incurred in connection with the proceedings set out above.

General meetings

In accordance with the Companies Act 2006, we must convene and hold annual general meetings within the six-month period beginning with the day following our accounting reference date. Under the Companies Act 2006, an annual general meeting must be called by notice of at least 21 clear days and a general meeting must be called by notice of at least 14 clear days.

No business shall be transacted at any general meeting unless a quorum is present when the meeting proceeds to business, but the absence of a quorum shall not preclude the choice or appointment of a chairperson of the meeting which shall not be treated as part of the business of the meeting. Save as otherwise provided by our Articles, shareholders holding thirty-three and one-third percent (33 1/3%) of our issued shares (excluding any shares held as treasury shares) present in person or by proxy (or in the case of a corporation, by a representative) and entitled to vote shall be a quorum for all purposes.

Choice of forum/governing law

Our Articles provide that the courts of England and Wales will be the exclusive forum for resolving all shareholder complaints other than shareholder complaints asserting a cause of action arising under the Securities Act and the Exchange Act, for which, unless we consent by ordinary resolution to the selection of an alternative forum, the United States District Court for the Southern District of New York will be the exclusive forum. As a company incorporated in England and Wales, the choice of the courts of England and Wales as our exclusive forum for resolving all shareholder complaints, other than complaints arising under the Securities Act and the Exchange Act, allows us to more efficiently and affordably respond to such actions, and provides consistency in the application of the laws of England and Wales to such actions. Similarly, we have selected the United States District Court for the Southern District of New York as our exclusive forum for resolving shareholder complaints arising under the Securities Act and the Exchange Act in order to more efficiently and affordably respond to such claims. This choice of forum also provides both us and our shareholders with a forum that is familiar with and regularly reviews cases involving U.S. securities law. Although we believe this choice of forum benefits us by providing increased consistency in the application of U.S. securities law for the specified types of action, it may have the effect of discouraging lawsuits against our directors and officers. Any person or entity purchasing or otherwise acquiring any interest in our ordinary shares will be deemed to have notice of and consented to the provisions of our Articles, including the exclusive forum provision. However, it is possible that a court could find our forum selection provision to be inapplicable or unenforceable. The enforceability of similar exclusive forum provisions (including exclusive federal forum provisions for actions, suits or proceedings asserting a cause of action arising under the Securities Act) in other companies' organizational documents has been challenged in legal proceedings, and there is uncertainty as to whether courts would enforce the exclusive forum provisions in our Articles. Additionally, our shareholders cannot waive compliance with the federal securities laws and the rules and regulations thereunder. See "Risk factors—Risks related to this offering and ownership of the ADSs"— Our new articles of association, to be adopted with effect from the completion of this offering, or Articles, will provide that the courts of England and Wales will be the exclusive forum for the resolution of all shareholder complaints other than complaints asserting a cause of action arising under the Securities Act or the Exchange Act, and that the United States District Court for the Southern District of New York will be the exclusive forum for the resolution of any shareholder complaint asserting a cause of action arising under the Securities Act or the Exchange Act."

Borrowing powers

Subject to our Articles and the Companies Act 2006, our board of directors may exercise all of our powers to:

(a) borrow money;

(b) indemnify and guarantee;

(c) mortgage or charge;

(d) create and issue debentures and other securities; and

(e) give security either outright or as collateral security for any of our debt, liability or obligation or any of a third party.

Capitalization of profits

The directors may, if they are so authorized by an ordinary resolution of the shareholders, decide to capitalize any of our undivided profits not required for paying any preferential dividend (whether or not they are available for distribution), or any sum standing to the credit of any reserve or fund which is available for distribution or standing to the credit of our share premium account, capital redemption reserve or other undistributable reserve. The directors may also, subject to the aforementioned ordinary resolution, appropriate any sum which they so decide to capitalize to the persons who would have been entitled to it if it were distributed by way of dividend and in the same proportions.

Limitation on owning securities

Neither English law nor our Articles restrict in any way the ownership or voting of our shares by non-residents.

Uncertificated shares

Subject to the Companies Act 2006 and any applicable uncertificated securities rules (as defined in our Articles of Association), our board of directors may permit title to shares of any class to be issued or held otherwise than by a certificate and to be transferred by means of a “relevant system” (i.e., the CREST System) without a certificate and may make arrangements for a class of shares to be transferred to that relevant system.

Our board of directors may, subject to compliance with the uncertificated securities rules (as defined in our Articles), determine at any time that title to any class of shares must be in certificated form and that such class of shares will cease to be transferred to a relevant system from a date specified by our board of directors. Our board of directors may take such steps as it sees fit in relation to the evidencing of and transfer of title to uncertificated shares, any records relating to the holding of uncertificated shares and the conversion of uncertificated shares to certificated shares, or vice-versa. Ordinary shares and Class A ordinary shares may be changed from uncertificated to certified form (and vice versa) in accordance with and subject to the uncertificated securities rules (as defined in our Articles).

We may, by notice to the holder of an uncertificated share, require that share to be converted into certificated form.

If, and subject to our Articles or pursuant to the Companies Act 2006, we are entitled to sell, transfer or otherwise dispose of, forfeit, re-allot, accept the surrender of or otherwise enforce a lien over an uncertificated share, such entitlement shall include the right of our board of directors to:

(i) require the holder of the uncertified share by notice in writing to change that share from uncertified to certificated form;

(ii) appoint any person to act on behalf of the holder of the uncertified share to take such steps as may be required in order to effect the transfer of that share; and

(iii) take such other action that our board of directors considers appropriate to achieve the sale, transfer, disposal, forfeiture, re-allotment or surrender of that share or otherwise to enforce a lien in respect of that share.

Unless our board of directors determines otherwise, shares which a shareholder holds in uncertificated form shall be treated as separate holdings from any shares which that shareholder holds in certificated form and any shares issued or created out of or in respect of any uncertificated shares shall be uncertificated shares and any shares issued or created out of or in respect of any certificated shares shall be certificated shares.

Our board of directors may take such other action that our board of directors considers appropriate to achieve the sale, transfer, disposal, forfeiture, re-allotment or surrender of an uncertified share or otherwise to enforce a lien in respect of it.

Other relevant UK laws and regulations

Takeover code

We believe that, as of the date of this prospectus, our place of central management and control is not in the UK (or the Channel Islands or the Isle of Man) for the purposes of the jurisdictional criteria of the Takeover Code. Accordingly, we believe that we are not currently subject to the Takeover Code and, as a result, our shareholders are not currently entitled to the benefit of certain takeover offer protections provided under the Takeover Code, including the rules regarding mandatory takeover bids (a summary of which is set out below). In the event that this changes, or if the interpretation and application of the Takeover Code by the Takeover Panel changes (including changes to the way in which the Takeover Panel assesses the application of the Takeover Code to English companies whose shares are listed outside of the UK), the Takeover Code may apply to us in the future.

Mandatory bid

The Takeover Code provides a framework within which takeovers of companies subject to it are conducted. In particular, the Takeover Code contains certain rules in respect of mandatory offers. Under the Takeover Code:

(a) any person who, together with persons acting in concert with him or her acquires, whether by a series of transactions over a period of time or not, an interest in shares which (taken together with shares in which they are already interested, and in which persons acting in concert with him or her are interested) carry 30% or more of the voting rights of a company; or

(b) any person who, together with persons acting in concert with him or her, is interested in shares which in the aggregate carry not less than 30% of the voting rights of a company but does not hold shares carrying more than 50% of such voting rights and such person, or any person acting in concert with him or her, acquires an interest in any other shares which increases the percentage of shares carrying voting rights in which he is interested, such person shall, except in limited circumstances, be obliged to extend offers, on the basis set out in Rules 9.3, 9.4 and 9.5 of the Takeover Code, to the holders of any class of equity share capital, whether voting or non-voting, and also to the holders of any other class of transferable securities carrying voting rights. Offers for different classes of equity share capital must be comparable; the Takeover Panel should be consulted in advance in such cases.

(i) An offer under Rule 9 of the Takeover Code must be in cash or be accompanied by a cash alternative and at the highest price paid for any interest in the shares by the person required to make an offer or any person acting in concert with him or her during the 12 months prior to the announcement of the offer.

(ii) Under the Takeover Code, “persons acting in concert” comprise persons who, pursuant to an agreement or understanding (whether formal or informal and whether or not in writing) actively co-operate, through the acquisition by them of an interest in share in a company, to obtain or consolidate control of the company. “Control” means an interest or interests, in shares carrying in aggregate 30% or more of the voting rights of a company, irrespective of whether the holding or holdings give de facto control.

Squeeze-out

(i) Under Sections 979 to 982 of the Companies Act 2006, where a takeover offer has been made for us and the offeror has acquired, or unconditionally contracted to acquire, not less than 90% in value of the shares to which the offer relates and not less than 90% of the voting rights carried by those shares, it could then compulsorily acquire the remaining 10%. It would do so by sending a notice to outstanding shareholders telling them that it will compulsorily acquire their shares, provided that no such notice may be served after the end of: (a) the period of three months beginning with the day after the last day on which the offer can be accepted; or (b) if earlier, and the offer is not one to which section 943(1) of the Companies Act 2006 applies (being an offer subject to the Takeover Code), the period of six months beginning with the date of the offer.

(ii) Six weeks following service of the notice, the offeror must send a copy of it to the company together with the consideration for the ordinary shares to which the notice relates, and an instrument of transfer executed on behalf of the outstanding shareholder(s) by a person appointed by the offeror.

(iii) The company will hold the consideration on trust for the outstanding shareholders.

Sell-out

(i) Sections 983 to 985 of the Companies Act 2006 also give minority shareholders in the company a right to be bought out in certain circumstances by an offeror who has made a takeover offer. If a takeover offer relating to all the ordinary shares of the company is made and the offeror has acquired or unconditionally agreed to acquire not less than 90% in value of the voting shares and not less than 90% of the voting rights carried by those shares, at any time before the end of the period within which the offer could be accepted, any holder of shares to which the offer related who had not accepted the offer could by a written communication to the offeror require it to acquire those shares. The offeror is required to give any shareholder notice of his right to be bought out within one month of that right arising. The offeror may impose a time limit on the rights of minority shareholders to be bought out, but that period cannot end less than three months after the end of the acceptance period, or, if longer a period of three months from the date of the notice.

(ii) If a shareholder exercises his rights, the offeror is bound to acquire those shares on the terms of the offer or on such other terms as may be agreed.

Disclosure of interest in shares

Pursuant to Part 22 of the Companies Act 2006, a company incorporated in England and Wales is empowered by notice in writing to require any person whom the company knows to be, or has reasonable cause to believe to be, interested in the company’s shares or at any time during the three years immediately preceding the date on which the notice is issued to have been so interested, within a reasonable time to disclose to the company details of that person’s interest and (so far as is within such person’s knowledge) details of any other interest that subsists or subsisted in those shares.

Under our Articles, if a shareholder defaults in supplying us with the required details in relation to the shares in question, or the Default Shares, within the prescribed period of 14 days, the shareholder shall not be entitled to vote or exercise any other right conferred by membership in relation to general meetings. Where the Default Shares represent 0.25% or more in nominal value of the issued shares of the class in question (calculated exclusive of any shares held as treasury shares), the directors may direct that:

- any dividend or other money payable in respect of the Default Shares shall be retained by us without any liability to pay interest on it when such dividend or other money is finally paid to the shareholder; and/or
- no transfer by the relevant shareholder of shares (other than a transfer permitted in accordance with the provisions of our Articles) may be registered (unless such shareholder is not in default and the transfer does not relate to Default Shares).

Purchase of own shares

English law permits a public limited company to purchase its own shares out of the distributable profits of the company or the proceeds of a fresh issue of shares made for the purpose of financing the purchase, subject to complying with procedural requirements under the Companies Act 2006 and provided that its articles of association do not prohibit it from doing so. Our Articles, a summary of which is provided above, do not prohibit us from purchasing our own shares. A public limited company must not purchase its own shares if, as a result of the purchase, there would no longer be any issued shares of the company other than redeemable shares or shares held as treasury shares. Shares must be fully paid in order to be repurchased.

Any such purchase will be either a “market purchase” or “off-market purchase,” each as defined in the Companies Act 2006. A “market purchase” is a purchase made on a “recognized investment exchange” within the meaning of the UK Financial Services and Markets Act 2000, as amended, or FSMA, other than an overseas exchange. An “off-market purchase” is a purchase that is not made on a “recognized investment exchange.” Both “market purchases” and “off-market purchases” require prior shareholder approval by way of an ordinary resolution. In the case of an “off-market purchase,” a company’s shareholders, other than the shareholders from whom the company is purchasing shares, must approve the terms of the contract to purchase shares and in the case of a “market purchase,” the shareholders must approve the maximum number of shares that can be purchased and the maximum and minimum prices to be paid by the company. Both resolutions authorizing “market purchases” and “off-market purchases” must specify a date, not later than five years after the passing of the resolution, on which the authority to purchase is to expire.

Nasdaq is an “overseas exchange” for the purposes of the Companies Act 2006 and does not fall within the definition of a “recognized investment exchange” for the purposes of FSMA and any purchase made by us would need to comply with the procedural requirements under the Companies Act 2006 that regulate “off-market purchases.”

A share buy-back by a company of its shares will give rise to UK stamp duty reserve tax and stamp duty at the rate of 0.5% of the amount or value of the consideration payable by the company (rounded up to the next £5.00). The charge to stamp duty reserve tax will be cancelled or, if already paid, repaid (generally with interest), where a transfer instrument for stamp duty purposes has been duly stamped within six years of the charge arising (either by paying the stamp duty or by claiming an appropriate relief) or if the instrument is otherwise exempt from stamp duty.

Our Articles do not have conditions governing changes to our capital which are more stringent that those required by law.

Distributions and dividends

Under the Companies Act 2006, before a company can lawfully make a distribution or dividend, it must ensure that it has sufficient distributable reserves, as determined on a non-consolidated basis. The basic rule is that a company's profits available for the purpose of making a distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. The requirement to have sufficient distributable reserves before a distribution or dividend can be paid applies to us and to each of our subsidiaries that has been incorporated under English law.

As a public company, it is also not sufficient that we have made a distributable profit for the purpose of making a distribution. An additional capital maintenance requirement is imposed on us to ensure that our net worth is at least equal to the amount of our capital. A public company can only make a distribution:

- if, at the time that the distribution is made, the amount of its net assets (that is, the total excess of assets over liabilities) is not less than the total of its called up share capital and undistributable reserves; and
- if, and to the extent that, the distribution itself, at the time that it is made, does not reduce the amount of the net assets to less than that total.

Shareholder rights

Certain rights granted under the Companies Act 2006, including the right to requisition a general meeting or require a resolution to be put to shareholders at the annual general meeting, are only available to our members. For English law purposes, our members are the persons who are registered as the owners of the legal title to the shares and whose names are recorded in our share register. If a person who holds their ADSs in DTC wishes to exercise certain of the rights granted under the Companies Act 2006, they may be required to first take steps to withdraw their ADSs from the settlement system operated by DTC and become the registered holder of the shares in our share register. A withdrawal of shares from DTC may have tax implications. For additional information on the potential tax implications of withdrawing your shares from the settlement system operated by DTC, see "Material income tax considerations—UK taxation."

Exchange controls

There are no governmental laws, decrees, regulations or other legislation in the UK that may affect the import or export of capital, including the availability of cash and cash equivalents for use by us, or that may affect the remittance of dividends, interest, or other payments by us to non-resident holders of our ordinary shares or ADSs, other than, on current law, withholding tax requirements that may apply in respect of interest. There is no limitation imposed by English law or in our Articles on the right of non-residents to hold or vote shares.

Differences in corporate law

The applicable provisions of the Companies Act 2006 differ from laws applicable to U.S. corporations and their shareholders. Set forth below is a summary of certain differences between the provisions of the Companies Act 2006 applicable to us and the General Corporation Law of the State of Delaware relating to shareholders' rights and protections. This summary is not intended to be a complete discussion of the respective rights and it is qualified in its entirety by reference to Delaware law and English law.

	England and Wales	Delaware
Number of Directors	Under the Companies Act 2006, a public limited company must have at least two directors and the number of directors may be fixed by or in the manner provided for in a company's articles of association.	Under Delaware law, a corporation must have at least one director and the number of directors shall be fixed by or in the manner provided in the bylaws.
Removal of Directors	Under the Companies Act 2006, shareholders may remove a director without cause by an ordinary resolution (which is passed by a simple majority of those voting in person or by proxy at a general meeting) irrespective of any provisions of any service contract the director has with the company, provided 28 clear days' notice of the resolution has been given to the company and its shareholders. On receipt of notice of an intended resolution to remove a director, the company must forthwith send a copy of the notice to the director concerned. Certain other procedural requirements under the Companies Act 2006 must also be followed, such as allowing the director to make representations against his or her removal either at the meeting or in writing.	Under Delaware law, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except (i) unless the certificate of incorporation provides otherwise, in the case of a corporation whose board of directors is classified, shareholders may effect such removal only for cause, or (ii) in the case of a corporation having cumulative voting, if less than the entire board of directors is to be removed, no director may be removed without cause if the votes cast against his removal would be sufficient to elect him or her if then cumulatively voted at an election of the entire board of directors, or, if there are classes of directors, at an election of the class of directors of which he is a part.
Vacancies on the Board of Directors	Under English law, the procedure by which directors, other than a company's initial directors, are appointed is generally set out in a company's articles of association, provided that where two or more persons are appointed as directors of a public limited company by resolution of the shareholders, resolutions appointing each director must be voted on individually unless a resolution has first been unanimously passed confirming that a single	Under Delaware law, vacancies and newly created directorships may be filled by a majority of the directors then in office (even though less than a quorum) or by a sole remaining director unless (i) otherwise provided in the certificate of incorporation or bylaws of the corporation or (ii) the certificate of incorporation directs that a particular class of stock is to elect such director, in which case a majority of the other directors elected by such class, or a sole

	England and Wales	Delaware
	resolution appointing two or more directors may be tabled at that meeting.	remaining director elected by such class, will fill such vacancy.
Annual General Meeting	Under the Companies Act 2006, a public limited company must hold an annual general meeting within the six-month period beginning with the day following the company's annual accounting reference date.	Under Delaware law, the annual meeting of shareholders shall be held at such place, on such date and at such time as may be designated from time to time by the board of directors or as provided in the certificate of incorporation or by the bylaws.
General Meeting	Under the Companies Act 2006, a general meeting of the shareholders of a public limited company may be called by the directors. Shareholders holding at least 5% of the paid-up capital of the company carrying voting rights at general meetings (excluding any paid up capital held as treasury shares) can require the directors to call a general meeting and, if the directors fail to do so within a certain period, may themselves (or any of them representing more than one half of the total voting rights of all of them) convene a general meeting.	Under Delaware law, special meetings of the shareholders may be called by the board of directors or by such person or persons as may be authorized by the certificate of incorporation or by the bylaws.
Notice of General Meetings	Under the Companies Act 2006, at least 21 clear days' notice must be given for an annual general meeting and any resolutions to be proposed at the meeting, subject to a company's articles of association providing for a longer period. Subject to a company's articles of association providing for a longer period, at least 14 clear days' notice is required for any other general meeting of a public limited company. In addition, certain matters, such as the removal of directors or auditors, require special notice, which is 28 clear days' notice. The shareholders of a public company (that is not a "traded company," as such term is defined in Part 13 of the Companies Act 2006) may in all cases consent to a shorter notice period, the proportion of shareholders' consent	Under Delaware law, unless otherwise provided in the certificate of incorporation or bylaws, written notice of any meeting of the shareholders must be given to each shareholder 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.

	England and Wales	Delaware
	required being 100% of those entitled to attend and vote in the case of an annual general meeting and, in the case of any other general meeting, a majority in number of the members having a right to attend and vote at the meeting, being a majority who together hold not less than 95% in nominal value of the shares giving a right to attend and vote at the meeting.	
Quorum	Subject to the provisions of a company's articles of association, the Companies Act 2006 provides that two shareholders present at a meeting (in person, by proxy or authorized representative under the Companies Act 2006) shall constitute a quorum for companies with more than one shareholder.	The certificate of incorporation or bylaws may specify the number of shares, the holders of which shall be present or represented by proxy at any meeting in order to constitute a quorum, but in no event shall a quorum consist of less than one third of the shares entitled to vote at the meeting. In the absence of such specification in the certificate of incorporation or bylaws, a majority of the shares entitled to vote, present in person or represented by proxy, shall constitute a quorum at a meeting of stockholders.
Proxy	Under the Companies Act 2006, at any meeting of shareholders, a shareholder may designate another person to attend, speak and vote at the meeting on their behalf by proxy.	Under Delaware law, at any meeting of shareholders, a shareholder may designate another person to act for such shareholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A director of a Delaware corporation may not issue a proxy representing the director's voting rights as a director.
Preemptive Rights	Under the Companies Act 2006, "equity securities," being (i) shares in the company other than shares that, with respect to dividends and capital, carry a right to participate only up to a specified amount in a distribution, referred to as "ordinary shares," or (ii) rights to subscribe for, or to convert securities into, ordinary shares, proposed to be allotted for cash must be offered first to	Under Delaware law, shareholders have no preemptive rights to subscribe to additional issues of stock or to any security convertible into such stock unless, and except to the extent that, such rights are expressly provided for in the certificate of incorporation.

	England and Wales	Delaware
	the existing equity shareholders in the company in proportion to the respective nominal value of their holdings, unless an exception applies or a special resolution to the contrary has been passed by shareholders in a general meeting or the articles of association provide otherwise in each case in accordance with the provisions of the Companies Act 2006.	
Authority to Allot	Under the Companies Act 2006, the directors of a company must not allot shares or grant rights to subscribe for or convert any security into shares unless an exception applies or an ordinary resolution has been passed by shareholders in a general meeting authorizing such allotment or the articles of association provide for such authorization, in each case in accordance with the provisions of the Companies Act 2006.	Under Delaware law, if the corporation's charter or certificate of incorporation so provides, the board of directors has the power to authorize the issuance of stock. The board of directors may authorize capital stock to be issued for consideration consisting of cash, any tangible or intangible property or any benefit to the corporation or any combination thereof. It may determine the amount of such consideration by approving a formula. In the absence of actual fraud in the transaction, the judgment of the directors as to the value of such consideration is conclusive.
Liability of Directors and Officers	Under the Companies Act 2006, any provision, whether contained in a company's articles of association or any contract or otherwise, that purports to exempt a director of a company, to any extent, from any liability that would otherwise attach to him or her in connection with any negligence, default, breach of duty or breach of trust in relation to the company, is void. Any provision by which a company directly or indirectly provides an indemnity, to any extent, for a director of the company or of an associated company against any liability attaching to him or her in connection with any negligence, default, breach of duty or breach of trust in relation to the company of which he or she is a director is also void except as permitted by the Companies Act	Under Delaware law, a corporation's certificate of incorporation may include a provision eliminating or limiting the personal liability of a director to the corporation and its shareholders for damages arising from a breach of fiduciary duty as a director. However, no provision can limit the liability of a director for: • any breach of the director's duty of loyalty to the corporation or its shareholders; • acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law; • intentional or negligent payment of unlawful dividends or stock purchases or redemptions; or

	England and Wales	Delaware
	2006, which provides exceptions for the company to (i) purchase and maintain insurance against such liability; (ii) provide a "qualifying third party indemnity," or an indemnity against liability incurred by the director to a person other than the company or an associated company as long as he or she is successful in defending the claim or criminal proceedings; and (iii) provide a "qualifying pension scheme indemnity," or an indemnity against liability incurred in connection with the company's activities as trustee of an occupational pension plan.	• any transaction from which the director derives an improper personal benefit.
Voting Rights	Our Articles require that all shareholder matters are voted on by way of a poll vote. Each of our shareholders will have one vote for each share held by that shareholder. Under English law, an ordinary resolution is passed on a poll it is approved by holders representing a simple majority of the total voting rights of shareholders present, in person or by proxy, who, being entitled to vote on the resolution, vote in favour of it. A special resolution requires the affirmative vote of not less than 75% of the votes cast by shareholders present, in person or by proxy, at the meeting. Voting by show of hands is not permitted under our Articles and shareholders will only be permitted to vote by show of hands in the event that our Articles are amended in the future to allow shareholder matters to be voted on by a show of hands.	Delaware law provides that, unless otherwise provided in the certificate of incorporation, each shareholder is entitled to one vote for each share of capital stock held by such shareholder.
Shareholder Vote on Certain Transactions	The Companies Act 2006 provides for schemes of arrangement, which are arrangements or compromises between a company and any class of shareholders or creditors and used in certain types of reconstructions, amalgamations, capital	Generally, under Delaware law, unless the certificate of incorporation provides for the vote of a larger portion of the stock, completion of a merger, consolidation, sale, lease or exchange of

	England and Wales	Delaware
	reorganizations or takeovers. These arrangements require: • the approval at a shareholders' or creditors' meeting convened by order of the court, of a majority in number of shareholders or creditors or a class thereof representing 75% in value of the capital held by, or debt owed to, the class of shareholders or creditors, or class thereof present and voting, either in person or by proxy; and • the approval of the court.	all or substantially all of a corporation's assets or dissolution requires: • the approval of the board of directors; and • the approval by the vote of the holders of a majority of the outstanding stock or, if the certificate of incorporation provides for more or less than one vote per share, a majority of the votes of the outstanding stock of the corporation entitled to vote on the matter.
Standard of Conduct for Directors	Under English law, a director owes various statutory and fiduciary duties to the company, including: • to act in accordance with the company's constitution and only exercise his powers for the purposes for which they are conferred; • to act in the way he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole; • to exercise independent judgment; • to exercise reasonable care, skill and diligence; • to avoid a situation in which he has, or can have, a direct or indirect interest that conflicts, or possibly conflicts, with the interests of the company; • not to accept benefits from a third party conferred by reason of his being a director or doing, or not doing, anything as a director; and • a duty to declare any interest that he has, whether directly or indirectly, in a proposed or existing transaction or arrangement with the company.	Delaware law does not contain specific provisions setting forth the standard of conduct of a director. The scope of the fiduciary duties of directors is generally determined by the courts of the State of Delaware. In general, directors have a duty to act without self-interest, on a well-informed basis and in a manner they reasonably believe to be in the best interest of the stockholders. Directors of a Delaware corporation owe fiduciary duties of care and loyalty to the corporation and to its stockholders. The duty of care generally requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself or herself of all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director act in a manner he reasonably believes to be in the best interests of the corporation. He must not use his corporate position for personal gain or advantage. In general, but subject to certain exceptions, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief

England and Wales	Delaware
	that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Delaware courts have also imposed a heightened standard of conduct upon directors of a Delaware corporation who take any action designed to defeat a threatened change in control of the corporation. In addition, under Delaware law, when the board of directors of a Delaware corporation approves the sale or break-up of a corporation, the board of directors may, in certain circumstances, have a duty to obtain the highest value reasonably available to the stockholders.

Stock exchange listing

Our ADSs have been approved for listing on Nasdaq under the trading symbol “ACHL.”

Transfer agent and registrar of shares

Our share register will be maintained by Computershare Investor Services plc upon the consummation of this offering. The share register reflects only the recorded holders of our ordinary shares and Class A ordinary shares. Holders of the ADSs will not be treated as our shareholders and their names will therefore not be entered in our share register. The depositary, the custodian or their nominees will be the holder of the ordinary shares underlying the ADSs. Holders of the ADSs have a right to receive the ordinary shares underlying their ADSs. For discussion on the ADSs and ADS holder rights, see “Description of American depositary shares” in this prospectus.

Description of American depositary shares

American depositary shares

The Bank of New York Mellon has agreed to act as the depositary for the ADSs. As depositary, The Bank of New York Mellon will register and deliver the ADSs. Each ADS represents one ordinary share (or a right to receive and to exercise the beneficial ownership interests in one ordinary share) deposited with The Bank of New York Mellon, or any successor, as custodian, acting through an office located in the United Kingdom. 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, NY 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 The Depository Trust Company, also called 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. English 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 "Where you can find additional information." The portions of this summary description that are italicized describe matters that may be relevant to the ownership of ADSs but that may not be contained in the deposit agreement.

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, taxes 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.

Before making a distribution, any withholding taxes, or other governmental charges that must be paid will be deducted. See “Material income tax considerations.” 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 the 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 for the purpose of withdrawal at the depositary's office. 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. The voting rights of holders of ordinary shares are described in "Description of share capital and articles of association—Articles of association."

If we request the depositary to solicit your voting instructions (and we are not required to do so), the depositary will notify you of an annual general 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 England and Wales and the provisions of our Articles 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 will not be able to exercise voting rights unless you surrender your ADSs and withdraw the shares. However, you may not know about the annual general 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 or as described in the following sentence. If we asked the depositary to solicit your instructions at least 45 days before the meeting date but the depositary does not receive voting instructions from you by the specified date, it will consider you to have authorized and directed it to give a discretionary proxy to a person designated by us to vote the number of deposited securities represented by your ADSs. The depositary will give a discretionary proxy in those circumstances to vote on all questions to be voted upon unless we notify the depositary that:

- we do not wish to receive a discretionary proxy;
- there is substantial shareholder opposition to the particular question; or
- the particular question would have an adverse impact on our shareholders.

We are required to notify the depositary if one of the conditions specified above exists.

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 agree to give the depositary notice of any such meeting and details concerning the matters to be voted upon at least 45 days in advance of the meeting date.

Fees and expenses

***Persons depositing or withdrawing shares or ADS holders must pay*:**	***For*:**
$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
$0.05 (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 depositary to ADS holders
$0.05 (or less) per ADS per calendar year	Depositary services
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Expenses of the depositary	Cable (including SWIFT), telex and facsimile transmissions (when expressly provided in the deposit agreement) Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depositary 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 depositary or its agents for servicing the deposited securities	As necessary

The depositary 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 depositary 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 depositary may collect its annual fee for depositary 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 depositary 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 depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

From time to time, the depositary 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 depositary or share revenue from the fees collected from ADS holders. In performing its duties under the deposit agreement, the depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depositary and that may earn or share fees, spreads or commissions.

The depositary may convert currency itself or through any of its affiliates and, in those cases, acts as principal for its own account and not as agent, advisor, broker or fiduciary 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 depositary or its affiliate receives when buying or selling foreign currency for its own account. The depositary makes no representation that the exchange rate used or obtained 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 depositary's obligations under the deposit agreement. The methodology used to determine exchange rates used in currency conversions is available upon request.

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 depositary 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 depositary 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 depositary 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 depositary may establish.

If deposited securities are redeemed for cash in a transaction that is mandatory for the depositary as a holder of deposited securities, the depositary 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 depositary receives new securities in exchange for or in lieu of the old deposited securities, the depositary will hold those replacement securities as deposited securities under the deposit agreement. However, if the depositary 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 depositary 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 depositary will continue to hold the replacement securities, the depositary 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 depositary 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 of 1933, as amended;
- 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 continue to collect distributions on deposited securities, but, after the termination date, the depositary 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 depositary; limits on liability to holders of adss

The deposit agreement expressly limits our obligations and the obligations of the depositary. It also limits our liability and the liability of the depositary. We and the depositary:

- are only obligated to take the actions specifically set forth in the deposit agreement without negligence or bad faith, and the depositary 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 any action or inaction in reliance on the advice or information received from legal counsel, accountants, any person presenting ordinary shares for deposit, any holder of ADSs or authorized representatives thereof, or any other person believed by either of us in good faith to be competent to give such advice or information;
- 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 depositary 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 depositary agree to indemnify each other under certain circumstances.

Requirements for depositary actions

Before the depositary will deliver or register a transfer of ADSs, make a distribution on ADSs, or permit withdrawal of shares, the depositary 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;
- 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 depositary may refuse to deliver ADSs or register transfers of ADSs when the transfer books of the depositary or our transfer books are closed or at any time if the depositary 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 depositary has closed its transfer books or we have closed our transfer books; (ii) the transfer of shares is blocked to permit voting at an annual general 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 depositary 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 depositary 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 depositary 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 depositary's reliance on and compliance with instructions received by the depositary through the DRS/Profile system and in accordance with the deposit agreement will not constitute negligence or bad faith on the part of the depositary.

Books of depositary; shareholder communications; inspection of register of holders of ADSs

The depositary will maintain ADS holder records at its depositary office. The depositary will make available for your inspection at its office all communications that it receives from us as a holder of deposited securities that we make generally available to holders of deposited securities. The depositary will send you copies of those communications or otherwise make those communications available to you if we ask it 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 this offering, there has been no public market for our ordinary shares or the ADSs. Upon completion of this offering, we will have 40,621,751 ordinary shares (including in the form of ADSs) outstanding. Future sales of ADSs in the public market after this 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 are subject to contractual and legal restrictions on resale as described below. There may be sales of substantial amounts of the ADSs in the public market after such restrictions lapse, which could adversely affect prevailing market prices of the ADSs.

We expect 9,750,000 ADSs, or 11,212,500 ADSs if the underwriters exercise their option to purchase additional ADSs in full, sold in this offering will be freely transferable without restriction, except for any shares purchased by one or more of our existing “affiliates,” as that term is defined in Rule 144 under the Securities Act, whose sale would be subject to the Rule 144 resale restrictions described below other than the holding period requirement. We expect 30,871,325 of our ordinary shares will be subject to the contractual 180-day lock-up period described below. This may adversely affect the prevailing market price of the ADSs and our ability to raise capital in the future.

Rule 144

In general, persons who have beneficially owned restricted ordinary shares for at least six months, and any affiliate of ours 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, subject to certain restrictions.

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 90 days preceding, a sale of our ordinary shares or ADSs, may sell an unlimited number of restricted securities under 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 period of any prior owner other than one of our affiliates, will be entitled to sell an unlimited number of restricted securities without regard to 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 90 days preceding, a sale of our ordinary shares or ADSs, would be subject to the restrictions described above.

They are also subject to additional restrictions, by which such person would be required to comply with the manner of sale and notice provisions of Rule 144 and 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 (including in the form of ADSs), which will equal approximately 420,718 shares immediately after the consummation of this offering based on the number of ordinary shares outstanding as of December 31, 2020; or
- the average weekly trading volume of our ordinary shares in the form of ADSs on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

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.

The SEC has indicated that Rule 701 will apply to typical share options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after the date of this prospectus. Securities issued in reliance on Rule 701 are restricted securities and, subject to the lock-up restrictions described below, beginning 90 days after the date of this prospectus, may be sold by persons other than “affiliates,” as defined in Rule 144, subject only to the manner of sale provisions of Rule 144 and by affiliates under Rule 144 without compliance with the holding period requirement.

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

We expect that all of our directors and executive officers and the holders of substantially all of our share capital will agree, 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 other securities for a period of 180 days after the date of this prospectus, without the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Piper Sandler & Co. See “Underwriting.”

Material income tax considerations

The following summary contains a description of material UK and U.S. federal income tax consequences of the acquisition, ownership and disposition of our ordinary shares or ADSs. This summary should not be considered a comprehensive description of all the tax considerations that may be relevant to the decision to acquire ordinary shares or ADSs in this offering.

Material U.S. federal income tax considerations for U.S. Holders

The following is a description of the material U.S. federal income tax consequences to the U.S. Holders described below of acquiring, owning and disposing of our ordinary shares or ADSs. It is not a comprehensive description of all tax considerations that may be relevant to a particular person's decision to acquire securities. This discussion applies only to a U.S. Holder that is an initial purchaser of the ordinary shares or ADSs pursuant to the offering and that holds our ordinary shares or ADSs as a capital asset for tax purposes (generally, property held for investment). In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including state and local tax consequences, estate or gift tax consequences, alternative minimum tax consequences, the potential application of the Medicare contribution tax, and tax consequences applicable to U.S. Holders subject to special rules, such as:

- banks, insurance companies, and certain other financial institutions;
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- brokers, dealers or traders in securities, currencies, commodities, or notional principal contracts;
- persons holding ordinary shares or ADSs as part of a hedging transaction, "straddle," wash sale, conversion transaction or integrated transaction or persons entering into a constructive sale with respect to ordinary shares or ADSs;
- persons whose "functional currency" for U.S. federal income tax purposes is not the U.S. dollar;
- tax-exempt entities or government organizations, including an "individual retirement account" or "Roth IRA" as defined in Section 408 or 408A of the Code (as defined below), respectively;
- S corporations, partnerships (including entities or arrangements classified as partnerships for U.S. federal income tax purposes) or other pass-through entities, or persons that will hold our ordinary shares or ADSs through such an entity;
- regulated investment companies, grantor trusts or real estate investment trusts;
- persons that own or are deemed to own 10% or more of the voting power or value of all classes of our ordinary shares or ADSs;
- persons who acquired our ordinary shares or ADSs pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to Section 451(b) of the Code; and
- persons holding our ordinary shares or ADSs in connection with a trade or business, permanent establishment, or fixed base outside the United States.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds ordinary shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and

the activities of the partnership. Partnerships holding our ordinary shares or ADSs and partners in such partnerships are encouraged to consult their tax advisors as to the particular U.S. federal income tax consequences of acquiring, holding and disposing of ordinary shares or ADSs.

The discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, administrative pronouncements, judicial decisions, final, temporary and proposed Treasury Regulations, and the income tax treaty between the UK and the United States, all as of the date hereof, changes to any of which may affect the tax consequences described herein-possibly with retroactive effect. There can be no assurances that the Internal Revenue Service, or the IRS, will not take a contrary or different position concerning the tax consequences of the acquisition, ownership and disposition of our ordinary shares or ADSs or that such a position would not be sustained by a court. We have not obtained, nor do we intend to obtain, a ruling with respect to the U.S. federal income tax considerations relating to the purchase, ownership or disposition of our ordinary shares or ADSs. Holders should consult their own tax advisors concerning the U.S. federal, state, local and non-U.S. tax consequences of acquiring, owning and disposing of our ordinary shares or ADSs in their particular circumstances.

A “U.S. Holder” is a holder who, for U.S. federal income tax purposes, is a beneficial owner of our ordinary shares or ADSs and is:

(i) An individual who is a citizen or resident of the United States;

(ii) a corporation, or other entity taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state therein or the District of Columbia;

(iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

(iv) a trust if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election to be treated as a U.S. person under applicable U.S. Treasury Regulations.

The discussion below assumes that the representations contained in the deposit agreement are true and that the obligations in the deposit agreement and any related agreement will be complied with in accordance with their terms. Accordingly, a holder of an ADS should be treated for U.S. federal income tax purposes as holding the ordinary shares represented by the ADS and no gain or loss will generally be recognized upon an exchange of the ADSs for ordinary shares.

As indicated below, this discussion is subject to U.S. federal income tax rules applicable to a “passive foreign investment company,” or PFIC.

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 ACQUISITION, OWNERSHIP AND DISPOSITION OF THE ORDINARY SHARES OR ADSs, INCLUDING THE APPLICABILITY OF U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX LAWS.

Passive foreign investment company rules

If we are classified as a passive foreign investment company in any taxable year, in which a U.S. Holder holds the ordinary shares or ADSs, the U.S. Holder will be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. Holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A non-U.S. corporation will be classified as a PFIC for any taxable year in which, after applying certain look-through rules, either:

- at least 75% of its gross income is passive income (such as interest income), or the income test; or
- at least 50% of the value of its gross assets (determined on the basis of a quarterly average) is attributable to assets that produce passive income or are held for the production of passive income, or the asset test.

We will be treated as owning our proportionate share of the assets and earning our proportionate share of the income of any other entity treated as a corporation for U.S. federal income tax purposes, the equity of which we own, directly or indirectly, 25% or more (by value).

We believe that we were classified as a PFIC for our taxable year ended December 31, 2020. Based on the current and expected composition of our income and assets and the value of our assets, we expect to be a PFIC for the current taxable year ending December 31, 2021. However, no assurances regarding our PFIC status can be provided for any past, current or future taxable years. The determination of whether we are a PFIC is a fact-intensive determination made on an annual basis applying principles and methodologies that in some circumstances are unclear and subject to varying interpretation. As a result, our PFIC status may change from year to year. Subject to certain exceptions, for purposes of the asset test, if we are treated as a non-publicly traded CFC for the year being tested for purposes of the PFIC rules (which is determined, under certain proposed Treasury Regulations that are not yet effective, based on whether such shares and ADSs are publicly traded for the majority of days during the year), the value of our assets for purposes of the asset test will be measured by the adjusted tax basis of our assets, which could increase the likelihood that we are treated as a PFIC. If we are a publicly traded CFC or not a CFC for such year, the value of our assets generally will be determined by reference to the market price of our ordinary shares or ADSs from time to time, which may fluctuate considerably. The income test depends on the nature and composition of our income. The composition of our income and assets is also affected by how fast we spend the cash we raise in any offering, including this offering.

If we are classified as a PFIC in any year with respect to which a U.S. Holder owns the 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 tests described above unless: (i) we cease to be a PFIC and the U.S. Holder has made a “deemed sale” election under the PFIC rules; or (ii) the U.S. Holder makes a Qualified Electing Fund Election, or QEF Election, as discussed below, with respect to all taxable years during such U.S. Holder’s holding period in which we are a PFIC. If the “deemed sale” election is made, a U.S. Holder will be deemed to have sold the ordinary shares or ADSs the U.S. Holder holds at their fair market value and any gain from such deemed sale would be subject to the rules described below. After the deemed sale election, so long as we do not become a PFIC in a subsequent taxable year, the U.S. Holder’s ordinary shares or ADSs with respect to which such election was made will not be treated as shares in a PFIC and the U.S. Holder will not be subject to the rules described below with respect to any “excess distribution” the U.S. Holder receives from us or any gain from an actual sale or other disposition of the ordinary shares or ADSs. U.S. Holders should consult their tax advisors as to the possibility and consequences of making a deemed sale election if we cease to be a PFIC and such election becomes available.

For each taxable year we are treated as a PFIC with respect to a U.S. Holder, the U.S. Holder will be subject to special tax rules with respect to any “excess distribution” such U.S. Holder receives and any gain such U.S. Holder recognizes from a sale or other disposition (including, under certain circumstances, a pledge) of ordinary shares or ADSs, unless: (i) such U.S. Holder makes a QEF Election as discussed below; or (ii) our ordinary shares or ADSs constitute “marketable” securities, and such U.S. Holder makes a mark-to-market election as discussed below. Distributions a U.S. Holder receives in a taxable year that are greater than 125% of

the average annual distributions the U.S. Holder received during the shorter of the three preceding taxable years or the U.S. Holder's holding period for the ordinary shares or ADSs will be treated as an excess distribution. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over a U.S. Holder's holding period for the ordinary shares or ADSs;
- the amount allocated to the taxable year of the excess distribution or disposition, and any taxable year prior to the first taxable year in which we became a PFIC, will be treated as ordinary income; and
- the amount allocated to each other year will be subject to the highest tax rate in effect for that year for individuals or corporations, as appropriate, and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

The tax liability for amounts allocated to years prior to the year of disposition or "excess distribution" cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the ordinary shares or ADSs cannot be treated as capital gains, even if a U.S. Holder holds the ordinary shares or ADSs as capital assets.

If we are a PFIC, a U.S. Holder will generally be subject to similar rules with respect to distributions we receive from, and our dispositions of the stock of, any of our direct or indirect subsidiaries that also are PFICs, as if such distributions were indirectly received by, and/or dispositions were indirectly carried out by, such U.S. Holder. U.S. Holders should consult their tax advisors regarding the application of the PFIC rules to our subsidiaries.

Certain elections exist that may alleviate some of the adverse consequences of PFIC status and would result in an alternative treatment of the ordinary shares or ADSs. A U.S. Holder may avoid the general tax treatment for PFICs described above by electing to treat us as a "qualified electing fund" under Section 1295 of the Code, or QEF, for each of the taxable years during the U.S. Holder's holding period that we are a PFIC. If a QEF election is not in effect for the first taxable year in the U.S. Holder's holding period in which we are a PFIC, a QEF election generally can only be made if the U.S. Holder elects to make an applicable deemed sale or deemed dividend election on the first day of its taxable year in which the PFIC becomes a QEF pursuant to the QEF election. The deemed sale or deemed dividend recognized with respect to such an election would be subject to the general tax treatment of PFICs discussed above. We intend to determine our PFIC status at the end of each taxable year and to satisfy any applicable record keeping and reporting requirements that apply to a QEF, and will endeavor to provide to U.S. Holders, for each taxable year that we determine we are a PFIC, a PFIC Annual Information Statement containing information necessary for a U.S. Holder to make a QEF Election with respect to us. We may elect to provide such information on our website. However, U.S. Holders should be aware that we can provide no assurances that we will provide any such information relating to any of our subsidiaries that are PFICs.

If a U.S. Holder makes a QEF election with respect to a PFIC, it will be taxed currently on its pro rata share of the PFIC's ordinary earnings and net capital gain (at ordinary income and capital gain rates, respectively) for each taxable year that the entity is a PFIC, even if no distributions were received. Any distributions we make out of our earnings and profits that were previously included in such a U.S. Holder's income under the QEF election would not be taxable to such U.S. Holder. Such U.S. Holder's tax basis in its ordinary shares or ADSs would be increased by an amount equal to any income included under the QEF election and decreased by any amount distributed on the ordinary shares or ADSs that is not included in its income. In addition, a U.S. Holder will recognize capital gain or loss on the disposition of its ordinary shares or ADSs in an amount equal to the difference between the amount realized and its adjusted tax basis in the ordinary shares or ADSs, each as determined in U.S. dollars. Once made, a QEF election remains in effect unless invalidated or terminated by the IRS or revoked by the shareholder. A QEF election can be revoked only with the consent of the IRS. A U.S. Holder will not be currently taxed on the ordinary earnings and net capital gain of a PFIC with respect to which

a QEF election was made for any taxable year of the non-U.S. corporation that such corporation is not classified as a PFIC. Each U.S. Holder should consult its tax advisor regarding the availability of, and procedure for making, any deemed sale, deemed dividend or QEF election.

Alternatively, U.S. Holders can avoid the interest charge on excess distributions or gain relating to the ordinary shares or ADSs by making a mark-to-market election with respect to the ordinary shares or ADSs, provided that the ordinary shares or ADSs are "marketable." The ordinary shares or ADSs will be marketable if they are "regularly traded" on certain U.S. stock exchanges or on a foreign stock exchange that meets certain conditions. For these purposes, the ordinary shares or ADSs will be considered regularly traded during any calendar year during which they are traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. Any trades that have as their principal purpose meeting this requirement will be disregarded. The ADSs will be listed on Nasdaq, which is a qualified exchange for these purposes. Consequently, if the ADSs remain listed on Nasdaq and are regularly traded, and you are a U.S. Holder of the ADSs, we expect the mark-to-market election would be available to you if we are a PFIC. Each U.S. Holder should consult its tax advisor as to whether a mark-to-market election is available or advisable with respect to the ordinary shares or ADSs.

A U.S. Holder that makes a mark-to-market election must include in ordinary income for each year an amount equal to the excess, if any, of the fair market value of the ordinary shares or ADSs at the close of the taxable year over the U.S. Holder's adjusted tax basis in the ordinary shares or ADSs at that time. An electing U.S. Holder may also claim an ordinary loss deduction for the excess, if any, of the U.S. Holder's adjusted basis in the ordinary shares or ADSs over the fair market value of the ordinary shares or ADSs at the close of the taxable year, but this deduction is allowable only to the extent of any net mark-to-market gains for prior years. Gains from an actual sale or other taxable disposition of the ordinary shares or ADSs will be treated as ordinary income, and any losses incurred on a sale or other taxable disposition of the shares or ADSs will be treated as an ordinary loss to the extent of any net mark-to-market gains for prior years. Once made, the election cannot be revoked without the consent of the IRS, unless the ordinary shares or ADSs cease to be marketable.

However, a mark-to-market election generally cannot be made for equity interests in any lower-tier PFICs that we own, unless shares of such lower-tier PFIC are themselves "marketable." As a result, even if a U.S. Holder validly makes a mark-to-market election with respect to our ordinary shares or ADSs, the U.S. Holder may continue to be subject to the PFIC rules (described above) with respect to its indirect interest in any of the lower-tier PFICs. U.S. Holders should consult their tax advisors to determine whether any of these elections would be available and if so, what the consequences of the alternative treatments would be in their particular circumstances.

Unless otherwise provided by the U.S. Treasury, each U.S. shareholder of a PFIC is required to file an annual report containing such information as the U.S. Treasury may require. A U.S. Holder's failure to file the annual report will cause the statute of limitations for such U.S. Holder's U.S. federal income tax return to remain open with regard to the items required to be included in such report until three years after the U.S. Holder files the annual report, and, unless such failure is due to reasonable cause and not willful neglect, the statute of limitations for the U.S. Holder's entire U.S. federal income tax return will remain open during such period. U.S. Holders should consult their tax advisors regarding the requirements of filing such information returns under these rules.

WE STRONGLY URGE YOU TO CONSULT YOUR TAX ADVISOR REGARDING THE IMPACT OF OUR PFIC STATUS ON YOUR INVESTMENT IN THE ORDINARY SHARES OR ADSs AS WELL AS THE APPLICATION OF THE PFIC RULES TO YOUR INVESTMENT IN THE ORDINARY SHARES OR ADSs.

Taxation of distributions

Subject to the discussion above under "Passive Foreign Investment Company Rules," distributions paid on our ordinary shares or ADSs, other than certain pro rata distributions of ordinary shares or ADSs, will generally be treated as dividends to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of earnings and profits will be non-taxable to the U.S. Holder to the extent of, and will be applied against and reduce, the U.S. Holder's adjusted tax basis in the ordinary shares or the ADSs. Distributions in excess of earnings and profits and such adjusted tax basis will generally be taxable to the U.S. Holder as either long-term or short-term capital gain depending upon whether the U.S. Holder has held the ordinary shares or the ADSs for more than one year as of the time such distribution is received. However, because we may not calculate our earnings and profits under U.S. federal income tax principles (if we are not or cease to be a PFIC), we expect that distributions generally will be reported to U.S. Holders as dividends, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above. Subject to applicable limitations, dividends paid to certain non-corporate U.S. Holders may be taxable at preferential rates applicable to "qualified dividend income" if we are a "qualified foreign corporation" and certain other requirements are met. However, the qualified dividend income treatment will not apply if we are treated as a PFIC with respect to the U.S. Holder for either the taxable year in which the dividend was paid or the preceding taxable year. The amount of the dividend will be treated as foreign-source dividend income to U.S. Holders and will not be eligible for the dividends-received deduction generally available to U.S. corporations under the Code. Dividends will generally be included in a U.S. Holder's income on the date of the U.S. Holder's receipt of the dividend. The amount of any dividend income paid in foreign currency will be the U.S. dollar amount calculated by reference to the exchange rate in effect on the date of actual or constructive receipt, regardless of whether the payment is in fact converted into U.S. dollars. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt. Such gain or loss would generally be treated as U.S.-source ordinary income or loss. The amount of any distribution of property other than cash (and other than certain pro rata distributions of ordinary shares or ADSs or rights to acquire ordinary shares or ADSs) will be the fair market value of such property on the date of distribution.

For foreign tax credit limitation purposes, our dividends will generally be treated as passive category income. Because no UK income taxes will be withheld from dividends on ordinary shares or ADSs, there will be no creditable foreign taxes associated with any dividends that a U.S. Holder will receive. The rules governing foreign tax credits are complex and U.S. Holders should therefore consult their tax advisors regarding the effect of the receipt of dividends for foreign tax credit limitation purposes.

Sale or other taxable disposition of ordinary shares and ADSs

Subject to the discussion above under "Passive Foreign Investment Company Rules," gain or loss realized on the sale or other taxable disposition of our ordinary shares or ADSs will be capital gain or loss, and will be long-term capital gain or loss if the U.S. Holder held the ordinary shares or ADSs for more than one year at the time of sale or other taxable disposition. The amount of the gain or loss will equal the difference between the U.S. Holder's tax basis in the ordinary shares or ADSs disposed of and the amount realized on the disposition, in each case as determined in U.S. dollars. This gain or loss will generally be U.S.-source gain or loss for foreign tax credit purposes. Subject to the PFIC rules described above, long-term capital gains recognized by certain non-corporate U.S. Holders (including individuals) will generally be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to limitations.

If the consideration received by a U.S. Holder is not paid in U.S. dollars, the amount realized will be the U.S. dollar value of the payment received determined by reference to the spot rate of exchange on the date of the

sale or other disposition. However, if the ordinary shares or ADSs are treated as traded on an “established securities market” and you are either a cash basis U.S. Holder or an accrual basis U.S. Holder that has made a special election (which must be applied consistently from year to year and cannot be changed without the consent of the IRS), you will determine the U.S. dollar value of the amount realized in a non-U.S. dollar currency by translating the amount received at the spot rate of exchange on the settlement date of the sale. If you are an accrual basis U.S. Holder that is not eligible to or does not elect to determine the amount realized using the spot rate on the settlement date, you will recognize foreign currency gain or loss to the extent of any difference between the U.S. dollar amount realized on the date of sale or disposition and the U.S. dollar value of the currency received at the spot rate on the settlement date , and such gain or loss will generally constitute ordinary income or loss.

Information reporting and backup withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless: (i) the U.S. Holder is a corporation or other exempt recipient; or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding on a duly executed IRS Form W-9 or otherwise establishes an exemption.

The amount of any backup withholding from a payment to a U.S. Holder may be allowed as a credit against the U.S. Holder’s U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that the required information is timely furnished to the IRS.

Information reporting and information with respect to foreign financial assets

Certain U.S. Holders may be required to file IRS Form 926 (Return by a U.S. Transferor of Property to a Foreign Corporation) to report a transfer of property (including cash) to us. Substantial penalties may be imposed on a U.S. Holder that fails to comply with this reporting requirement and the period of limitations on assessment and collection of U.S. federal income taxes will be extended in the event of a failure to comply. In addition, certain U.S. Holders who are individuals (and, under regulations, certain entities) may be required to report information relating to the ordinary shares or ADSs, subject to certain exceptions (including an exception for ordinary shares or ADSs held in accounts maintained by certain U.S. financial institutions), by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. Such U.S. Holders who fail to timely furnish the required information may be subject to a penalty. Additionally, if a U.S. Holder does not file the required information, the statute of limitations with respect to tax returns of the U.S. Holder to which the information relates may not close until three years after such information is filed. U.S. Holders should consult their tax advisors regarding their reporting obligations with respect to their ownership and disposition of the ordinary shares or ADSs and with respect to their possible obligation to file IRS Form 926.

UK taxation

The following is intended as a general guide to current UK tax law and HM Revenue & Customs, or HMRC, published practice (which is not binding) applying as at the date of this prospectus (both of which are subject to change at any time, possibly with retrospective effect) relating to the holding of ADSs. It does not constitute legal or tax advice and does not purport to be a complete analysis of all UK tax considerations relating to the holding of ADSs, or all of the circumstances in which holders of ADSs may benefit from an exemption or relief from UK taxation. It is written on the basis that we do not (and will not) directly or indirectly at any time derive 75% or more of our qualifying asset value from UK land, and that we are and will remain solely resident in the UK for tax purposes and will therefore be subject to the UK tax regime and not the U.S. tax regime save as set out above under “Material U.S. Federal Income Tax Considerations for U.S. Holders.”

Except to the extent that the position of non-UK resident persons is expressly referred to, this guide relates only to persons who are resident (and in the case of individuals, domiciled or deemed domiciled) for tax purposes solely in the UK and do not have a permanent establishment, branch or agency (or equivalent) in any other jurisdiction with which the holding of the ADSs is connected, or UK Holders, who are absolute beneficial owners of the ADSs (and do not hold the ADSs through an Individual Savings Account or a Self-Invested Personal Pension) and any dividends paid in respect of the ADSs or underlying ordinary shares (where the dividends are regarded for U.K. tax purposes as that person's own income) and who hold their ADSs as investments.

This guide may not relate to certain classes of UK Holders, such as (but not limited to):

- persons who are connected with us;
- financial institutions;
- insurance companies;
- charities or tax-exempt organizations;
- collective investment schemes;
- pension schemes;
- market makers, intermediaries, brokers or dealers in securities;
- persons who have (or are deemed to have) acquired their ADSs by virtue of an office or employment or who are or have been our officers or employees or any of our affiliates; and
- individuals who are subject to UK taxation on a remittance basis or to whom split-year treatment applies.

The decision of the First-tier Tribunal (Tax Chamber) in HSBC Holdings PLC and The Bank of New York Mellon Corporation v HMRC (2012) cast some doubt on whether a holder of a depositary receipt is the beneficial owner of the underlying shares. However, based on published HMRC guidance we would expect that HMRC will regard a holder of ADSs as holding the beneficial interest in the underlying shares and therefore these paragraphs assume that a holder of ADSs is the beneficial owner of the underlying ordinary shares and any dividends paid in respect of the underlying ordinary shares (where the dividends are regarded for UK purposes as that person's own income) for UK direct tax purposes.

THESE PARAGRAPHS ARE A SUMMARY OF CERTAIN UK TAX CONSIDERATIONS AND ARE INTENDED AS A GENERAL GUIDE ONLY. IT IS RECOMMENDED THAT ALL HOLDERS OF ADSs OBTAIN ADVICE AS TO THE CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSAL OF THE ADSs IN THEIR OWN PARTICULAR CIRCUMSTANCES FROM THEIR OWN TAX ADVISORS. IN PARTICULAR, NON-UK RESIDENT OR DOMICILED PERSONS OR PERSONS SUBJECT TO TAXATION IN ANY JURISDICTION OTHER THAN THE UK ARE ADVISED TO CONSIDER THE POTENTIAL IMPACT OF ANY RELEVANT DOUBLE TAXATION AGREEMENTS.

Dividends

Withholding tax

Dividends that we pay will not be subject to any withholding or deduction for or on account of UK tax.

Income tax

An individual UK Holder may, depending on his or her particular circumstances, be subject to UK tax on dividends received from us. An individual holder of ADSs who is not resident for tax purposes in the UK should

not be chargeable to UK income tax on dividends received from us unless he or she carries on (whether solely or in partnership) a trade, profession or vocation in the UK through a branch or agency to which the ADSs are attributable. There are certain exceptions for trading in the UK through independent agents, such as some brokers and investment managers.

Dividend income is treated as the top slice of the total income chargeable to UK income tax for an individual UK Holder. An individual UK Holder who receives a dividend in the 2020/2021 tax year will be entitled to a dividend tax-free allowance of £2,000. Income within the dividend tax-free allowance counts towards an individual's basic or higher rate limits and may, therefore, affect the level of income tax personal allowance to which they are entitled. Dividend income in excess of the dividend tax-free allowance will (subject to the availability of any income tax personal allowance) be charged at 7.5% to the extent the excess amount falls within the basic rate band, 32.5% to the extent the excess amount falls within the higher rate band, and 38.1% to the extent the excess amount falls within the additional rate band.

Corporation tax

A corporate holder of ADSs who is not resident for tax purposes in the UK should not be chargeable to UK corporation tax on dividends received from us unless it carries on (whether solely or in partnership) a trade in the UK through a permanent establishment to which the ADSs are attributable.

Corporate UK Holders should not be subject to UK corporation tax on any dividend received from us so long as the dividends qualify for exemption, which should be the case, although certain conditions must be met. It should be noted that the exemptions, whilst of wide application, are not comprehensive and are subject to anti-avoidance rules in relation to a dividend. If the conditions for the exemption are not satisfied, such anti-avoidance provisions apply, or such UK Holder elects for an otherwise exempt dividend to be taxable, UK corporation tax will be chargeable on the amount of any dividends (at the current rate of 19% for the tax year 2020/2021).

Chargeable gains

A disposal or deemed disposal of ADSs by a UK Holder may, depending on the UK Holder's circumstances and subject to any available exemptions or reliefs (such as the annual exemption), give rise to a chargeable gain or an allowable loss for the purposes of UK capital gains tax and corporation tax on chargeable gains.

If an individual UK Holder who is subject to UK income tax at either the higher or the additional rate is liable to UK capital gains tax on the disposal of ADSs, the current applicable rate will be 20%. For an individual UK Holder who is subject to UK income tax at the basic rate and liable to UK capital gains tax on such disposal, the current applicable rate would be 10%, save to the extent that any capital gains when aggregated with the UK Holder's other taxable income and gains in the relevant tax year exceed the unused basic rate tax band. In that case, the rate currently applicable to the excess would be 20%.

If a corporate UK Holder becomes liable to UK corporation tax on the disposal (or deemed disposal) of ADSs, the main rate of UK corporation tax (currently 19% for the tax year 2020/2021) would apply.

Any chargeable gain (or allowable loss) will generally be calculated by reference to the consideration received for the disposal of the ADSs less the allowable cost to the UK Holder of acquiring such ADSs.

A holder of ADSs that is not resident for tax purposes in the UK and, in the case of an individual holder, not temporarily non-resident in the UK, should not normally be liable to UK capital gains tax or corporation tax on chargeable gains on a disposal (or deemed disposal) of ADSs, unless the person is carrying on (whether solely or in partnership) a trade, profession or vocation in the UK through a branch or agency (or, in the case of a

corporate holder of ADSs, through a permanent establishment) to which the ADSs are attributable. However, an individual holder of ADSs who has ceased to be resident for tax purposes in the UK or is treated as resident outside the UK for the purposes of a double taxation treaty for a period of five years or less and who disposes of ADSs during that period of temporary non-residence may be liable on his or her return to the UK (or upon ceasing to be regarded as resident outside the U.K. for the purposes of double taxation treaty) to UK tax on any capital gain realized (subject to any available exemption or relief).

Stamp duty and stamp duty reserve tax

The discussion below relates to the holders of our ordinary shares or ADSs wherever resident, however it should be noted that special rules may apply to certain persons such as market makers, brokers, dealers or intermediaries.

Issue of ordinary shares

As a general rule (and except in relation to depositary receipt systems and clearance services (as to which see below)), no UK stamp duty or stamp duty reserve tax, or SDRT, is payable on the issue of the ordinary shares underlying the ADSs.

Transfers of ordinary shares

An unconditional agreement to transfer ordinary shares will normally give rise to a charge to SDRT at the rate of 0.5% of the amount or value of the consideration payable for the transfer. The purchaser of the shares is liable for the SDRT. Transfers of ordinary shares in certificated form are generally also subject to stamp duty at the rate of 0.5% of the amount or value of the consideration given for the transfer (rounded up to the next £5.00). Stamp duty is normally paid by the purchaser. The charge to SDRT will be cancelled or, if already paid, repaid (generally with interest), where a transfer instrument has been duly stamped within six years of the charge arising, (either by paying the stamp duty or by claiming an appropriate relief) or if the instrument is otherwise exempt from stamp duty.

Clearance services and depositary receipts

Under current UK legislation, an issue or transfer of ordinary shares or an unconditional agreement to transfer ordinary shares to a clearance service or a depositary receipt system (including to a nominee or agent for, a person whose business is or includes the issue of depositary receipts or the provision of clearance services) will generally be subject to SDRT (and, in the case of transfers, where the transfer is effected by a written instrument, stamp duty) at a higher rate of 1.5% of the amount or value of the consideration given for the transfer or, in certain circumstances, the value of the ordinary shares unless the clearance service has made and maintained an election under section 97A of the UK Finance Act 1986, or a section 97A election. It is understood that HMRC regards the facilities of DTC as a clearance service for these purposes and we are not aware of any section 97A election having been made by the DTC.

However, based on current published HMRC practice following European Union case law in respect of the European Council Directives 69/335/EEC and 2009/7/EC, no SDRT is generally payable in respect of such an issue of ordinary shares and no SDRT or stamp duty is generally payable in respect of such a transfer of ordinary shares where such transfer is an integral part of an issue of share capital. It is noted that on January 31, 2020 the United Kingdom ceased to be a Member State of the European Union. Accordingly, the extent to which HMRC's position will remain as set out in this paragraph following the end of the transition period on December 31, 2020 is uncertain.

Any stamp duty or SDRT payable on an issue or transfer of ordinary shares to a depositary receipt system or clearance service (although strictly accountable by the clearance service or depositary receipt system operator or their nominee) will in practice generally be paid by the transferors or participants in the clearance service or depositary receipt system. Specific professional advice should be sought before incurring or reimbursing the costs of a 1.5% stamp duty or SDRT charge in any circumstances.

Issue or transfers of ADSs

No UK SDRT or stamp duty is required to be paid in respect of the issue or transfer of, or an agreement to transfer, ADSs (including by way of a paperless transfer of ADSs through the facilities of DTC).

Underwriting

We are offering the ADSs described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC, BofA Securities, Inc. and Piper Sandler & Co. are acting as joint book-running managers of the offering and as representatives of the underwriters. We will enter into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of ADSs listed next to its name in the following table:

Name	Number of ADSs
J.P. Morgan Securities LLC	3,412,500
BofA Securities, Inc.	3,412,500
Piper Sandler & Co.	1,706,250
Chardan Capital Markets, LLC	487,500
Oppenheimer & Co.	390,000
Kempen & Co U.S.A., Inc.	341,250
Total	9,750,000

The underwriters will commit to purchasing all the ADSs offered by us if they purchase any ADSs. The underwriting agreement will also provide that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the ADSs directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $0.756 per ADS. After the initial offering of the ADSs to the public, if all of the ADSs are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of ADSs made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to 1,462,500 additional ADSs from us to cover sales of ADSs by the underwriters which exceed the ADSs specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional ADSs. If any ADSs are purchased with this option to purchase additional ADSs, the underwriters will purchase ADSs in approximately the same proportion as shown in the table above. If any additional ADSs are purchased, the underwriters will offer the additional ADSs on the same terms as those on which the ADSs are being offered.

The underwriting fee is equal to the public offering price ADS less the amount paid by the underwriters to us per ADS. The underwriting fee is $1.26 per ADS. The following table shows the per ADS and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional ADSs.

	Without option to purchase additional ADSs exercise	With full option to purchase additional ADSs exercise
Per ADS	$ 1.26	$ 1.26
Total	$ 12,285,000	$ 14,127,750

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately $3,000,000. We have also agreed to reimburse the underwriters for certain of their expenses in an amount up to $30,000.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of ADSs to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not, subject to certain exceptions, (i) 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 submit to, or file with the SEC a registration statement under the Securities Act relating to, any of our ordinary shares or ADSs or securities convertible into or exchangeable or exercisable for any ordinary share or ADS, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any ordinary shares, ADSs or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of ordinary shares or ADSs or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Piper Sandler & Co. for a period of 180 days after the date of this prospectus.

Our directors, executive officers and existing shareholders have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 180 days after the date of this prospectus, may not, without the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Piper Sandler & Co.: (i) 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 transfer or dispose of, directly or indirectly, any of our ordinary shares or ADSs or any securities convertible into or exercisable or exchangeable for our ordinary shares or ADSs (including, without limitation, ordinary shares or ADSs or such other securities which may be deemed to be beneficially owned by such directors, executive officers, managers and members in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant); (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any ordinary shares, ADSs or such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of ordinary shares, ADSs or such other securities, in cash or otherwise; (iii) make any demand for or exercise any right with respect to the registration of any ordinary shares or ADSs or any security convertible into or exercisable or exchangeable for our ordinary shares or ADSs; or (iv) publicly disclose the intention to undertake any of the foregoing.

The restrictions described in the immediately preceding paragraph do not apply to, subject in certain cases to various conditions, to certain transactions, including: (a) transfers of lock-up securities: (i) as a bona fide gift or gifts, or for bona fide estate planning purposes; (ii) by will or intestacy; (iii) to any trust for the direct or indirect benefit of the lock-up party or the immediate family of the lock-up party, or if the lock-up party is a trust, to a trustor or beneficiary of the trust or to the estate of a beneficiary of such trust; (iv) to a partnership, limited liability company or other entity of which the lock-up party and the immediate family of the lock-up party are the legal and beneficial owner of all of the outstanding equity securities or similar interests; (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv); (vi) if the lock-up party is a corporation, partnership, limited liability company, trust or other business

entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party, affiliates of the lock-up party or those sharing a common investment advisor with the lock-up party or (B) as part of a distribution to members, limited partners, general partners, subsidiaries, affiliates or shareholders of the lock-up party; (vii) by operation of law; such as pursuant to a qualified domestic order, divorce settlement, divorce decree or separation agreement, (viii) to us from an employee upon death, disability or termination of employment of such employee; (ix) as part of a sale of the lock-up party's securities acquired in this offering or in open market transactions after the closing date of this offering; (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase ordinary shares or ADSs (including, in each case, by way of "net" or "cashless" exercise), including for the payment of exercise price and tax and remittance payments due as a result of the vesting, settlement or exercise of such options, warrants or rights, provided that any ordinary shares or ADSs received upon such exercise, vesting or settlement shall be subject to the terms of the lock-up agreement and are held by the lock-up party pursuant to an agreement or equity awards granted under any equity incentive or other benefit plan described in this prospectus; or (xi) pursuant to a bona fide third-party tender offer, merger, consolidation scheme of arrangement or other similar transaction approved by our board of directors and made to all shareholders involving a change in control, provided that if such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph; (b) exercise of the options, settlement of equity awards, or the exercise of warrants granted pursuant to plans described in this prospectus, provided that any lock-up securities received upon such exercise, vesting or settlement would be subject to restrictions similar to those in the immediately preceding paragraph; (c) transfers of lock-up securities in connection with the share exchange as described in this prospectus, provided that any ADSs or ordinary shares received by the lock-up party shall be subject to the terms of the lock-up agreement; (d) deposits of ordinary shares with the Depositary, in exchange for the issuance of ADSs or the cancellation of ADSs in exchange for the issuance of ordinary shares, provided that such ADSs or ordinary shares held by the lock-up party shall remain subject to the terms of the lock-up agreement; (e) conversion of outstanding preferred shares, warrants to acquire preferred shares or convertible securities into ordinary shares or ADSs or warrants to acquire ordinary shares or ADSs; provided that any such ordinary shares or ADSs or warrants received upon such conversion shall be subject to the terms of the lock-up agreement (f) the establishment by lock-up parties of trading plans under Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for the transfer of lock-up securities during the restricted period and any public announcement or filing under the Exchange Act shall be required or made voluntarily with such trading plan; and (g) sale of the securities to be sold by the lock-up party pursuant to the terms of the underwriting agreement.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Our ADSs have been approved for listing/quotation on Nasdaq under the symbol "ACHL."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling ADSs in the open market for the purpose of preventing or retarding a decline in the market price of the ADSs while this offering is in progress. These stabilizing transactions may include making short sales of the ADSs, which involves the sale by the underwriters of a greater number of ADSs than they are required to purchase in this offering, and purchasing ADSs on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional ADSs referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional ADSs, in whole or in part, or by purchasing ADSs in the open

market. In making this determination, the underwriters will consider, among other things, the price of ADSs available for purchase in the open market compared to the price at which the underwriters may purchase ADSs through the option to purchase additional ADSs. 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 ADSs in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase ADSs in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the ADSs, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase ADSs in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those ADSs as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the ADSs or preventing or retarding a decline in the market price of the ADS, and, as a result, the price of the ADSs may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on Nasdaq, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for the ADSs. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for the ADSs, or that the ADSs will trade in the public market at or above the initial public offering price.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Extended settlement

We expect that delivery of the ordinary shares and ADSs will be made to investors on or about the third business day following the date of the final prospectus supplement (this settlement cycle being referred to as "T+3"). Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended, trades in the secondary market are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, if you wish to trade the securities before their delivery, you will be required, because the securities initially will settle in T+3, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. If you wish to trade the securities before their delivery, you should consult your advisor.

Notice to prospective investors in Canada

The 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 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 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.

Notice to prospective investors in the European economic area and United Kingdom

In relation to each Member State of the European Economic Area, or the EEA, and the United Kingdom, or each a Relevant State, no ADSs have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the ADSs which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of ADSs may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

b) 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 underwriters; or

c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of ADSs shall require us 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 and each person who initially acquires any ADSs or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and us that it is a "qualified investor" within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any ADSs being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the ADSs acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any ADSs to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an "offer to the public" in relation to 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 ADSs to be offered so as to enable an investor to decide to purchase or subscribe for any ADSs, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Notice to prospective investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons") or otherwise in circumstances which have not resulted and will not result in an offer to the public of the ADSs in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to prospective investors in Switzerland

The ADSs may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and 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 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, us or the 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 ADSs will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of ADSs has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of ADSs.

Notice to prospective investors in Japan

The ADSs have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the ADSs nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any "resident" of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to prospective investors in Hong Kong

The 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 the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong), or the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the 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 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 SFO and any rules made thereunder.

Notice to prospective investors in Singapore

Each underwriter has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any ADSs or caused the ADSs to be made the subject of an invitation for subscription or purchase and will not offer or sell any ADSs or cause the ADSs to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the ADSs, whether directly or indirectly, to any person in Singapore other than:

a) 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, or the SFA) pursuant to Section 274 of the SFA;

b) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the 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

c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the 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 ADSs pursuant to an offer made under Section 275 of the SFA except:

i. 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;

ii. where no consideration is or will be given for the transfer;

iii. where the transfer is by operation of law;

iv. as specified in Section 276(7) of the SFA; or

v. as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Notice to prospective investors in China

This prospectus will not be circulated or distributed in the PRC and the ADSs will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Notice to prospective investors in Mexico

None of the ADSs or the ordinary shares have been or will be registered with the National Securities Registry (Registro Nacional de Valores) maintained by the Mexican National Banking and Securities Commission (Comision Nacional Bancaria y de Valores), or CNBV, of Mexico and, as a result, may not be offered or sold publicly in Mexico. The ADSs and the ordinary shares may only be sold to Mexican institutional and qualified investors, pursuant to the private placement exemption set forth in the Mexican Securities Market Law (Ley del Mercado de Valores). As required under the Mexican Securities Market Law, we will give notice to the CNBV of the offering of the securities under the terms set forth herein. Such notice will be submitted to the CNBV to comply with the Mexican Securities Market Law, and for informational purposes only. The delivery to, and receipt by, the CNBV of such notice does not certify our solvency, the investment quality of the securities, or that the information contained in this prospectus or in any prospectus supplement. We have prepared this prospectus and is solely responsible for its content, and the CNBV has not reviewed or authorized such content.

Notice to prospective investors in Australia

This prospectus:

- does not constitute a disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth), or the Corporation Act;
- has not been, and will not be, lodged with the Australian Securities and Investments Commission, or ASIC, as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and
- may only be provided in Australia to select investors who are able to demonstrate that they fall within one more of the categories of investors, available under 708 of the Corporations Act, or Exempt Investors.

The ADSs may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the ADSs may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any ADSs may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the ADSs, you represent and warrant to us that you are an Exempt Investor.

As any offer of ADSs under this document will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the ADSs you undertake to us that you will not, for a period of 12 months from the date of issue of the ADSs, offer, transfer, assign or otherwise alienate those ADSs to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Notice to prospective investors in the Dubai international financial centre

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority, or DFSA. This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 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 supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial advisor.

In relation to its use in the Dubai International Financial Centre, or DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

Notice to prospective investors in the Cayman Islands

This prospectus does not constitute an invitation or offer to the public in the Cayman Islands of the ADSs, whether by way of sale or subscription. The underwriters have not offered or sold, and will not offer or sell, directly or indirectly, any ADSs in the Cayman Islands.

Notice to prospective investors in Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus may be distributed only to, and is directed only at, investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds; provident funds; insurance companies; banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange Ltd., underwriters, each purchasing for their own account; venture capital funds; entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors. Qualified investors shall be required to submit written confirmation that they fall within the scope of the Addendum.

Notice to prospective investors in the kingdom of Saudi Arabia

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or CMA, pursuant to resolution number 2-11-2004 dated October 4, 2004 as amended by resolution number 1-28-2008, as amended, or the CMA Regulations. The CMA does not make any representation as to the accuracy or completeness of this document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorized financial advisor.

Notice to prospective investors in South Korea

The ADSs have not been and will not be registered under the Financial Investments Services and Capital Markets Act of South Korea and the decrees and regulations thereunder, or the FSCMA, and the ADSs have been and will be offered in South Korea as a private placement under the FSCMA. None of the ADSs may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in South Korea or to any resident of South Korea except pursuant to the applicable laws and regulations of South Korea, including the FSCMA and the Foreign Exchange Transaction Law of South Korea and the decrees and regulations thereunder, or the FETL. The ADSs have not been listed on any of securities exchanges in the world including, without limitation, the Korea Exchange in South Korea. Furthermore, the purchaser of the ADSs shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the ADSs. By the purchase of the ADSs, the relevant holder thereof will be deemed to represent and warrant that if it is in South Korea or is a resident of South Korea, it purchased the ADSs pursuant to the applicable laws and regulations of South Korea.

Notice to prospective investors in Kuwait

Unless all necessary approvals from the Kuwait Ministry of Commerce and Industry required by Law No. 31/1990 “Regulating the Negotiation of Securities and Establishment of Investment Funds,” its Executive Regulations and the various Ministerial Orders issued pursuant thereto or in connection therewith, have been given in relation to the marketing and sale of the ADSs, these may not be marketed, offered for sale, nor sold in the State of Kuwait. Neither this prospectus (including any related document), nor any of the information contained therein is intended to lead to the conclusion of any contract of whatsoever nature within Kuwait.

Notice to prospective investors in Malaysia

No prospectus or other offering material or document in connection with the offer and sale of the ADSs has been or will be registered with the Securities Commission of Malaysia, or Commission, for the Commission’s approval pursuant to the Capital Markets and Services Act 2007. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the ADSs may not be circulated or distributed, nor may the ADSs be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Malaysia other than (i) a closed end fund approved by the Commission; (ii) a holder of a Capital Markets Services License; (iii) a person who acquires the ADSs, as principal, if the offer is on terms that the ADSs may only be acquired at a consideration of not less than RM250,000 (or its equivalent in foreign currencies) for each transaction; (iv) an individual whose total net personal assets or total net joint assets with his or her spouse exceeds RM3 million (or its equivalent in foreign currencies), excluding the value of the primary residence of the individual; (v) an individual who has a gross annual income exceeding RM300,000 (or its equivalent in foreign currencies) per

annum in the preceding twelve months; (vi) an individual who, jointly with his or her spouse, has a gross annual income of RM400,000 (or its equivalent in foreign currencies), per annum in the preceding twelve months; (vii) a corporation with total net assets exceeding RM10 million (or its equivalent in a foreign currencies) based on the last audited accounts;(viii) a partnership with total net assets exceeding RM10 million (or its equivalent in foreign currencies); (ix) a bank licensee or insurance licensee as defined in the Labuan Financial Services and Securities Act 2010; (x) an Islamic bank licensee or takaful licensee as defined in the Labuan Financial Services and Securities Act 2010; and (xi) any other person as may be specified by the Commission; provided that, in the each of the preceding categories (i) to (xi), the distribution of the ADSs is made by a holder of a Capital Markets Services License who carries on the business of dealing in securities. The distribution in Malaysia of this prospectus is subject to Malaysian laws. This prospectus does not constitute and may not be used for the purpose of public offering or an issue, offer for subscription or purchase, invitation to subscribe for or purchase any securities requiring the registration of a prospectus with the Commission under the Capital Markets and Services Act 2007.

Notice to prospective investors in the state of Qatar

The ADSs described in this prospectus have not been, and will not be, offered, sold or delivered, at any time, directly or indirectly in the State of Qatar in a manner that would constitute a public offering. This prospectus has not been, and will not be, registered with or approved by the Qatar Financial Markets Authority or Qatar Central Bank and may not be publicly distributed. This prospectus is intended for the original recipient only and must not be provided to any other person. It is not for general circulation in the State of Qatar and may not be reproduced or used for any other purpose.

Notice to prospective investors in Taiwan

The ADSs have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the ADSs in Taiwan.

Notice to prospective investors in the United Arab Emirates

The ADSs have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

Expenses of this offering

Set forth below is an itemization of the total expenses, excluding the underwriting discounts and commissions, which are expected to be incurred in connection with the sale of ADSs in this offering. With the exception of the registration fee payable to the SEC, Nasdaq initial listing fee and the filing fee payable to FINRA, all amounts are estimates.

Expense	Amount
SEC registration fee	$ 23,242
Nasdaq initial listing fee	320,000
FINRA filing fee	32,456
Printing and engraving expenses	115,000
Legal fees and expenses	2,055,000
Accounting fees and expenses	378,000
Transfer agent and registrar expenses	40,000
Miscellaneous costs	36,302
Total	$ 3,000,000

Legal matters

The validity of our ordinary shares and certain other matters of U.S. federal law and English law will be passed upon for us by Goodwin Procter LLP and Goodwin Procter (UK) LLP, respectively. Certain legal matters of U.S. federal law and English law will be passed upon for the underwriters by Latham & Watkins LLP.

Experts

The financial statements of Achilles Therapeutics plc as of December 31, 2020 and 2019, and for each of the years in the two-year period ended December 31, 2020, have been included herein and in the registration statement in reliance on the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in auditing and accounting.

The registered business address of KPMG LLP is 15 Canada Square, London, E14 5GL, United Kingdom.

Service of process and enforcement of liabilities

We are incorporated and currently existing under the laws of England and Wales. In addition, certain of our directors and officers reside outside of the United States and most of the assets of our non-U.S. subsidiaries are located outside of the United States. As a result, it may be difficult for investors to effect service of process on us or those persons in the United States or to enforce in the United States judgments obtained in United States courts against us or those persons based on the civil liability or other provisions of the United States securities laws or other laws.

In addition, uncertainty exists as to whether the courts of England and Wales would:

- recognize or enforce judgments of United States courts obtained against us or our directors or officers predicated upon the civil liabilities provisions of the securities laws of the United States or any state in the United States; or
- entertain original actions brought in England and Wales against us or our directors or officers predicated upon the securities laws of the United States or any state in the United States.

We have been advised by Goodwin Procter LLP that there is currently no treaty between: (i) the United States; and (ii) England and Wales providing for reciprocal recognition and enforcement of judgments of United States courts in civil and commercial matters (although the United States and the U.K. are both parties to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards) and that a final judgment for the payment of money rendered by any general or state court in the United States based on civil liability, whether or not predicated solely upon the United States securities laws, would not be automatically enforceable in England and Wales. We have also been advised by Goodwin Procter LLP that any final and conclusive monetary judgment for a definite sum obtained against us in United States courts would be treated by the courts of England and Wales as a cause of action in itself and sued upon as a debt at common law so that no retrial of the issues would be necessary, provided that:

- the relevant U.S. court had jurisdiction over the original proceedings according to English conflicts of laws principles at the time when proceedings were initiated;
- the courts of England and Wales had jurisdiction over the matter on enforcement and we either submitted to such jurisdiction or were resident or carrying on business within such jurisdiction and were duly served with process;

- the U.S. judgment was final and conclusive on the merits in the sense of being final and unalterable in the court that pronounced it and being for a definite sum of money;
- the judgment given by the courts was not in respect of penalties, taxes, fines or similar fiscal or revenue obligations (or otherwise based on a U.S. law that the courts of England and Wales consider to relate to a penal, revenue or other public law);
- the judgment was not procured by fraud;
- recognition or enforcement of the judgment in England and Wales would not be contrary to public policy or the Human Rights Act 1998;
- the proceedings pursuant to which judgment was obtained were not contrary to natural justice;
- the U.S. judgment was not arrived at by doubling, trebling or otherwise multiplying a sum assessed as compensation for the loss or damages sustained and not being otherwise in breach of Section 5 of the UK Protection of Trading Interests Act 1980, or is a judgment based on measures designated by the Secretary of State under Section 1 of that Act;
- there is not a prior decision of the courts of England and Wales or the court of another jurisdiction on the issues in question between the same parties; and
- the English enforcement proceedings were commenced within the limitation period.

Whether these requirements are met in respect of a judgment based upon the civil liability provisions of the United States securities laws, including whether the award of monetary damages under such laws would constitute a penalty, is an issue for the court making such decision.

Subject to the foregoing, investors may be able to enforce in England and Wales judgments in civil and commercial matters that have been obtained from U.S. federal or state courts. Nevertheless, we cannot assure you that those judgments will be recognized or enforceable in England and Wales.

If the courts of England and Wales give a judgment for the sum payable under a U.S. judgment, the English judgment will be enforceable by methods generally available for this purpose. These methods generally permit the courts of England and Wales discretion to prescribe the manner of enforcement. In addition, it may not be possible to obtain an English judgment or to enforce that judgment if the judgment debtor is or becomes subject to any insolvency or similar proceedings, or if the judgment debtor has any set-off or counterclaim against the judgment creditor. Also note that, in any enforcement proceedings, the judgment debtor may raise any counterclaim that could have been brought if the action had been originally brought in England unless the subject of the counterclaim was in issue and denied in the U.S. proceedings. It should also be noted that in the courts of England and Wales system the usual rule is that the losing party is ordered to pay the legal costs of the litigation that were incurred by the successful party. These costs are assessed by the courts of England and Wales at the conclusion of the litigation.

Where you can find additional information

We have filed with the SEC a registration statement (including amendments and exhibits to the registration statement) on Form F-1 under the Securities Act. A related registration statement on Form F-6 will be filed with the SEC to register the ADSs. This prospectus, which forms a part of the registration statement, does not contain all of the information included in the registration statement and the exhibits and schedules to the registration statement. Certain information is omitted and you should refer to the registration statement and its exhibits and schedules for that information. If a document has been filed as an exhibit to the registration statement, we refer you to the copy of the document that has been filed. Each statement in this prospectus relating to a document filed as an exhibit is qualified in all respects by the filed exhibit.

Upon completion of this offering, we will be subject to the information reporting requirements of the Exchange Act applicable to foreign private issuers. Accordingly, we will be required to file reports and other information with the SEC, including annual reports on Form 20-F and reports on Form 6-K. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov. We also maintain a corporate website at www.achillestx.com and upon closing of the offering, you may access, free of charge, our annual reports on Form 20-F and current reports on Form 6-K and any amendments to those reports, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. We have included our website address in this prospectus solely as an inactive textual reference.

As a foreign private issuer, we will be exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders will be 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.

Index to Financial Statements

All historical share and per share data included in these financial statements exclude the impact of the conversion of all outstanding convertible preferred shares into ordinary shares and subsequent one-for-0.2526 reverse share split of all ordinary shares, except for N ordinary shares, and the one-for-0.1792 reverse share split of N ordinary shares that will be part of the Company's corporate reorganization to be effected immediately prior to and conditional on the completion of this offering.

Report of independent registered public accounting firm

To the Shareholders and Board of Directors Achilles Therapuetics Limited:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Achilles Therapeutics Limited (and subsidiaries) (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations and comprehensive loss, statements of shareholders' equity, and statements of cash flows for each of the years in the two-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2020.

Reading, United Kingdom

March 1, 2021, except for the effects of the share split discussed in Note 15 to the consolidated financial statements, as to which the date is March 29, 2021

Achilles Therapeutics Plc
Consolidated Balance Sheets
(expressed in U.S. Dollars, unless otherwise stated)

(in thousands, except share and per share amounts)	December 31, 2019	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 97,594	$ 177,849
Prepaid expenses and other current assets	5,467	9,948
Total current assets	103,061	187,797
Non-current assets:		
Property and equipment, net	1,613	13,369
Operating lease right of use assets	497	14,740
Deferred tax assets	—	4
Other assets	34	3,008
Total non-current assets	2,144	31,121
TOTAL ASSETS	$105,205	$ 218,918
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 902	$ 6,314
Income taxes payable	—	7
Accrued expenses and other liabilities	2,468	6,590
Operating lease liabilities—current	487	3,712
Total current liabilities	3,857	16,623
Non-current liabilities:		
Operating lease liabilities-non-current	—	12,271
Other long-term liability	—	652
Total non-current liabilities	—	12,923
Total liabilities	3,857	29,546
Commitments and contingencies (Note 12)		
Shareholders' equity:		
Ordinary shares, £0.001 par value; 10,032,731 and 18,529,204 shares authorized, issued and outstanding at December 31, 2019 and 2020, respectively	14	25
Deferred shares, £0.001 par value; 991,865 and 30,521 shares issued and outstanding at December 31, 2019 and 2020, respectively	1	—
Convertible preferred shares, £0.001 par value; 63,044,714 and 104,854,673 shares authorized, issued and outstanding at December 31, 2019 and 2020, respectively	79	134
Additional paid in capital	117,958	234,903
Accumulated other comprehensive income	8,109	12,322
Accumulated deficit	(24,813)	(58,012)
Total shareholders' equity	101,348	189,372
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$105,205	$ 218,918

The accompanying notes are an integral part of these financial statements.

Achilles Therapeutics Plc
Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share amounts)	Years ended December 31, 2019	2020
OPERATING EXPENSES:		
Research and development	$ 9,072	$ 22,629
General and administrative	4,703	11,098
Total operating expenses	13,775	33,727
Loss from operations	(13,775)	(33,727)
OTHER INCOME (EXPENSE), NET:		
Other income (expense)	(215)	531
Total other income (expense), net	(215)	531
Loss before provision for income taxes	(13,990)	(33,196)
Provision for income taxes	—	(3)
Net loss	(13,990)	(33,199)
Other comprehensive income:		
Foreign exchange translation adjustment	8,504	4,213
Comprehensive loss	$ (5,486)	$ (28,986)
Net loss per share attributable to ordinary shareholders—basic and diluted	$ (5.50)	$ (7.87)
Weighted average ordinary shares outstanding—basic and diluted	2,542,520	4,219,823
Pro forma net loss per share attributable to ordinary shareholders—basic and diluted (unaudited)	$ (21.79)	$ (31.14)
Pro forma weighted average ordinary shares outstanding—basic and diluted (unaudited)	642,169	1,066,208
Supplemental pro forma net loss attributable to ordinary shareholders—basic and diluted (unaudited)		$ (1.82)
Supplemental pro forma weighted average ordinary shares outstanding—basic and diluted (unaudited)		18,200,429

The accompanying notes are an integral part of these financial statements.

Achilles Therapeutics Plc
Consolidated Statements of Shareholders' Equity

(in thousands, except share amounts)	Convertible preferred shares: Series A $0.001 par value Shares	Series A $0.001 par value Amount	Series B $0.001 par value Shares	Series B $0.001 par value Amount	Series C $0.001 par value Shares	Series C $0.001 par value Amount	Ordinary $0.001 par value Shares	Ordinary $0.001 par value Amount	Deferred shares $0.001 par value Shares	Deferred shares $0.001 par value Amount	Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total
Balance at December 31, 2018	17,850,000	$ 23	—	$ —	—	$ —	5,573,906	$ 8	71,431	$ —	$ 23,860	$ (395)	$ (10,823)	$ 12,673
Issuance of A series convertible preferred shares, net of issuance costs	10,400,000	13	—	—	—	—	—	—	—	—	13,241	—	—	13,254
Issuance of B series convertible preferred shares, net of issuance costs of $283	—	—	34,794,714	43	—	—	—	—	—	—	80,145	—	—	80,188
Issuance of ordinary shares (Note 7)	—	—	—	—	—	—	5,379,259	7	—	—	(7)	—	—	—
Conversion of ordinary shares into deferred shares	—	—	—	—	—	—	(920,434)	(1)	920,434	1	—	—	—	—
Share-based compensation expense	—	—	—	—	—	—	—	—	—	—	719	—	—	719
Unrealized gain on foreign currency translation	—	—	—	—	—	—	—	—	—	—	—	8,504	—	8,504
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(13,990)	(13,990)
Balance at December 31, 2019	28,250,000	$ 36	34,794,714	$ 43	—	$ —	10,032,731	$ 14	991,865	$ 1	$ 117,958	$ 8,109	$ (24,813)	$ 101,348

Achilles Therapeutics Plc
Consolidated Statements of Shareholders' Equity

(in thousands, except share amounts)	Convertible preferred shares						Ordinary $0.001 par value		Deferred shares $0.001 par value		Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total
	Series A $0.001 par value		Series B $0.001 par value		Series C $0.001 par value									
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Issuance of B series convertible preferred shares, net of issuance costs of $20	—	—	17,397,356	23	—	—	—	—	—	—	44,101	—	—	44,124
Issuance of C series convertible preferred shares, net of issuance costs of $187	—	—	—	—	24,412,603	32	—	—	—	—	69,862	—	—	69,894
Issuance of ordinary shares (Note 7)	—	—	—	—	—	—	9,044,513	12	—	—	(12)	—	—	—
Conversion of ordinary shares into deferred shares	—	—	—	—	—	—	(548,040)	(1)	548,040	1	—	—	—	—
Repurchase of deferred shares									(1,509,384)	(2)	2	—	—	—
Share-based compensation expense	—	—	—	—	—	—	—	—	—	—	2,992	—	—	2,992
Unrealized gain on foreign currency translation	—	—	—	—	—	—	—	—	—	—	—	4,213	—	4,213
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(33,199)	(33,199)
Balance at December 31, 2020	28,250,000	36	52,192,070	66	24,412,603	32	18,529,204	25	30,521	—	234,903	12,322	(58,012)	189,372

The accompanying notes are an integral part of these financial statements.

Achilles Therapeutics Plc
Consolidated Statements of Cash Flows

(in thousands)	Years ended December 31, 2019	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (13,990)	$ (33,199)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation and amortization	302	772
Loss on disposal of property and equipment	14	—
Changes in right of use assets and operating lease liabilities, net	(9)	1,179
Non-cash share-based compensation	719	2,992
Changes in operating assets and liabilities		
Prepaid expenses and other current assets	(2,566)	(3,120)
Accounts payable	548	5,258
Income taxes payable	—	7
Accrued expenses and other liabilities	873	3,045
Other long-term liability	—	614
Deferred tax assets	—	(4)
Other assets	(33)	(2,796)
Net cash used in operating activities	(14,142)	(25,252)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(942)	(11,847)
Net cash used in investing activities	(942)	(11,847)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds of issuance of convertible preferred shares, net of issuance costs	93,622	113,825
Payments of initial public offering costs	—	(121)
Net cash provided by financing activities	93,622	113,704
Effect of exchange rate changes on cash, cash equivalents and restricted cash	8,373	3,650
Net increase in cash	86,911	80,255
Cash, cash equivalents and restricted cash, beginning of year	10,683	97,594
Cash, cash equivalents and restricted cash, end of year	$ 97,594	$ 177,849
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Right of use assets obtained in exchange for new operating lease liabilities	$ 457	$ 15,846
Property and equipment purchases in accrued expenses	$ 343	$ 285
Issuance costs of convertible preferred shares included in accounts payable	$ 192	$ —
Deferred offering costs included in accrued expenses	$ —	$ 826

The accompanying notes are an integral part of these financial statements.

Achilles Therapeutics Plc
Notes to Consolidated Financial Statements

1. Nature of the business

Achilles Therapeutics plc (formerly Achilles TX Limited), or the Company, is a biopharmaceutical company developing transformative precision T cell therapies to treat multiple types of solid tumors. The Company is focused on advancing immuno-oncology therapeutics by exploiting its pioneering work in the field of tumor evolution and clonal neoantigens.

The Company is a public limited company originally incorporated pursuant to the laws of England and Wales in November 2020 as a private limited company named Achilles TX Limited, with nominal assets and liabilities, for the purposes of becoming the ultimate holding company for Achilles Therapeutics UK Limited (formally Achilles Therapeutics Limited) and consummating the corporate reorganization described below. Achilles Therapeutics UK Limited was incorporated in May 2016 under the laws of England and its registered office and principal place of business is currently 245 Hammersmith Road, London W6 8PW. Achilles TX Limited and Achilles Therapeutics Holdings Limited (a wholly owned direct subsidiary of Achilles TX Limited formed in November 2020 for the purpose of becoming the direct holding company of Achilles Therapeutics UK Limited) and Achilles Therapeutics US, Inc. have not conducted any operations prior to the corporate reorganization other than activities incidental to their formation.

The corporate reorganization took place in several steps, of which the following were completed as of December 31, 2020.

- **Exchange of Achilles Therapeutics UK Limited Shares for Achilles TX Limited Shares**: All shareholders of Achilles Therapeutics UK Limited exchanged each of the shares held by them for shares of Achilles TX Limited to result in them holding the same number and class of newly issued shares of £1.20 nominal value of Achilles TX Limited and, as a result, Achilles TX Limited became the sole shareholder of Achilles Therapeutics UK Limited.
- **Reduction of the share capital of Achilles TX Limited:** Achilles TX Limited reduced its share capital by way of a reduction of the nominal value of each share in the capital of Achilles TX Limited from £1.20 to £0.001 in order to satisfy the net asset test requirement in section 92 of the Companies Act 2006 for re-registration as a public limited company and to create distributable reserves.

As a result of the above the Achilles TX Limited is the successor to Achilles Therapeutics UK Limited, or the Predecessor, and the financial information for period prior to the incorporation of Achilles TX Limited represents that of the Predecessor.

Subsequent to December 31, 2020, in preparation for this offering, Achilles TX Limited was re-registered as a public limited company and renamed Achilles Therapeutics plc, which required the passing of special resolutions by the shareholders of Achilles TX Limited to approve the re-registration of Achilles TX Limited as a public limited company, the name change to Achilles Therapeutics plc and the adoption of new articles of association of Achilles Therapeutics plc.

The Company has devoted its efforts principally to research and development since formation. The Company has not yet completed product development, filed for or obtained regulatory approvals for any products, nor verified the market acceptance and demand for such products. As a result, the Company is subject to risks that

are common to emerging companies in the biotech industry. Principal among these risks are the uncertainties of the product discovery and development process, dependence on key individuals, development of the same or similar technological innovations by the Company's competitors, protection of proprietary technology, compliance with government regulations and approval requirements, the Company's ability to access capital and uncertainty of market acceptance of products.

Going concern

The Company has historically been loss making and anticipates that it will continue to incur losses for the foreseeable future and had an accumulated deficit of $58.0 million as of December 31, 2020. The Company has funded these losses principally through the issuance of preferred shares. The Company expects to continue to incur operating losses and negative cash outflows until such time as it generates a level of revenue that is sufficient to support its cost structure.

The spread of COVID-19 has impacted the global economy and has impacted the Company's operations, including the interruption of preclinical and clinical trial activities and potential interruption to supply chain. The Company has maintained operations at both its GMP manufacturing and research and development sites which culminated in the dosing of the Company's first melanoma patient in May 2020 and the first NSCLC patient in June 2020 with further recruitment and dosing of patients through 2020. The Company continues to assess the impact COVID-19 may have on its ability to advance the development of drug candidates or to raise financing to support the development of drug candidates, but no assurances can be given that this analysis will enable it to avoid part or all of any impact from the spread of COVID-19 or its consequences, including downturns in business sentiment generally or in its sector in particular.

As of December 31, 2020, the Company had cash and cash equivalents of $177.8 million. The Directors have reviewed the financial projections of the Company for the 12 months subsequent to the signing of these financial statements including consideration of severe but plausible scenarios that may affect the Company in that period. These show that the Company will be able to pay (or otherwise discharge) its debts as they fall due immediately following the date of signing of this Balance Sheet and for the period considered by the forecast.

Accordingly, the financial statements have been prepared on a basis that assumes the Company will continue as a going concern and which contemplates the realization of assets and settlement of liabilities and commitments in the ordinary course of business.

2. Summary of significant accounting policies

Basis of presentation

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, or U.S. GAAP.

Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting periods. Significant estimates and assumptions reflected in these financial statements include,

but are not limited to, the accrual for research and development expenses and the fair value of ordinary shares. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results could differ materially from those estimates.

Segment information

The Company operates in a single segment, focusing on researching, developing and commercializing potentially novel cancer immunotherapies targeting clonal neoantigens. Consistent with its operational structure, its chief operating decision maker, the Company's chief executive officer, views and manages the Company's operations and manages its business as a single operating segment. All material long-lived assets of the Company reside in the UK.

Foreign currency translation

The functional currency of the Company is pound sterling which is its local currency. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at rates of exchange prevailing at the balance sheet dates. Non-monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the date of the transaction. Exchange gains or losses arising from foreign currency transactions are included in other expense, net in the statement of comprehensive loss. The Company recorded foreign exchange gains of $0.4 million and $0.1 million for the years ended December 31, 2019 and 2020, respectively.

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

Cash and cash equivalents

The Company considers all highly liquid investments that have maturities of three months or less when acquired to be cash equivalents.

Deferred Initial Public Offering Costs

The Company capitalizes deferred initial public offering, or IPO, costs, which primarily consist of direct, incremental legal, professional accounting and other third-party fees relating to the Company's IPO, within prepaid expenses and other current assets. The deferred IPO costs will be offset against IPO proceeds upon the consummation of an offering. Should the planned IPO be abandoned, the deferred IPO costs will be expensed immediately as a charge to operating expenses in the consolidated statement of operations and comprehensive loss. The Company recorded $1.0 million of deferred IPO costs as of December 31, 2020. The Company did not record any deferred IPO costs as of December 31, 2019.

Fair value of financial instruments

The carrying values of the Company's cash and cash equivalents, prepaid expenses and other current assets, accounts payable, and certain accruals approximate their fair value due to their short-term nature.

Concentrations of credit risk and off-balance sheet risk

Financial instruments that subject the Company to credit risk consist solely of cash and cash equivalents. The Company maintains cash balances in excess of amounts insured by the U.K. Government Financial Services Compensation Scheme in the United Kingdom. The Company has no significant off-balance-sheet risk or concentration of credit risk, such as foreign exchange contracts, options contracts, or other foreign hedging arrangements.

Property and equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the respective assets, which are as follows:

	Estimated useful life
Lab equipment	5 years
Fixture and fittings	5 years
Office equipment and computers	3 years
Leasehold improvements	Shorter of useful life or remaining lease term

Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in the statement of operations and other comprehensive loss. Expenditures for repairs and maintenance are charged to expense as incurred.

Impairment of long-lived assets

The Company evaluates assets for potential impairment when events or changes in circumstances indicate the carrying value of the assets may not be recoverable. Recoverability is measured by comparing the book values of the assets to the expected future net undiscounted cash flows that the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the book values of the assets exceed their fair value. The Company has not recognized any impairment losses in the years ended December 31, 2019 and 2020.

Research and development costs

Research and development costs are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including salaries, non-cash share-based compensation and benefits, depreciation expense, travel, third-party license fees, and external costs of outside vendors engaged to conduct clinical development activities, clinical trials, cost to manufacture clinical trial materials and net of tax credits associated with research and development activities.

Research contract costs and accruals

The Company has entered into various research and development-related contracts with research institutions and other companies. These agreements are generally cancelable, and related payments are recorded as research and development expenses as incurred. Accruals for research and development expenses typically include fees paid to vendors in conjunction with preclinical development activities, CROs and investigative sites in connection with preclinical and clinical activities and costs to manufacture clinical trial materials in connection with the manufacturing of drug formulations for use in preclinical and clinical activities. When estimating accruals for research and development expenses as of each balance sheet date, the Company

analyzes progress of the preclinical activities or clinical trials, including the phase or completion of services performed relative to invoices received and contracted costs. Actual results could differ from the Company's estimates. The Company's historical accrual estimates of research and development expenses have not been materially different from the actual costs.

Asset Retirement and Environmental Obligations

Pursuant to ASC 410, Asset Retirement and Environmental Obligations, an asset retirement obligation, or AROs, is recorded when there is a legal obligation associated with the retirement of a tangible long-lived asset and the fair value of the liability can reasonably be estimated. Upon initial recognition, AROs are recorded as a liability at their estimated present value, with an offsetting increase to the carrying amount of the long-lived asset. Over time, the liabilities are accreted for the change in their present value through charges to operations costs. If the fair value of the estimated ARO changes, an adjustment is recorded to both the ARO and the asset retirement cost. Revisions in estimated liabilities can result from revisions of estimated inflation rates, escalating retirement costs, and changes in the estimated timing of settling ARO liabilities.

Total ARO consists of amounts for decommissioning and restoration of rented facilities to be performed in the future. The Company computes the liability for AROs based on assumptions from third-party estimates of the total restoration costs, adjusted for inflation. These values are discounted to present value using our credit adjusted incremental borrowing rate of the related rental facility and recorded ARO in other long-term liabilities. Periodic accretion of the discount on the ARO is recorded as part of accretion expense.

Share-based compensation

The Company recognizes compensation expense for equity awards based on the grant date fair value of the award, which may include share options and restricted ordinary shares. For equity awards that vest based on a service condition, the share-based compensation expense is recognized on a straight-line basis over the requisite service period. The Company accounts for forfeitures as they occur. For equity awards with performance conditions, the Company recognizes share-based compensation expense using a straight-line basis over the requisite service period when the achievement of a performance-based milestone is probable, based on the relative satisfaction of the performance condition as of the reporting date. The Company uses the fair value of its ordinary shares to determine the fair value of Employee Shares, C ordinary shares and K ordinary shares awarded to employees and directors.

Effective January 1, 2019, the Company adopted ASU No. 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, or ASU 2018-7, which expands the scope of Topic 718 to include share-based payment awards to nonemployees. As a result, stock-based awards granted to nonemployees are accounted for in the same manner as awards granted to employees and directors as described above. The adoption of this new guidance did not have a material impact on the Company's financial statements.

There have been no performance conditions attached to the share options granted by the Company to date. The fair value of each share option grant is estimated on the date of grant using the Black-Scholes option pricing model. See Note 7 for the Company's assumptions used in connection with option grants made during the periods covered by these consolidated financial statements. Assumptions used in the option pricing model include the following:

Expected volatility. As a private company, the Company lacks company-specific historical and implied volatility information for its ordinary shares. Therefore, it estimates its expected share volatility based on the historical volatility of publicly traded peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded share price.

Expected term. The expected term of the Company's share options has been determined utilizing the "simplified" method for awards that qualify as "plain-vanilla" options.

Risk-free interest rate. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods that are approximately equal to the expected term of the award.

Expected dividend. Expected dividend yield of zero is based on the fact that the Company has never paid cash dividends on ordinary shares and does not expect to pay any cash dividends in the foreseeable future.

The Company estimated the fair value of its ordinary shares with input from an independent third-party valuation specialist firm in accordance with the guidelines in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the practice Aid. The Company's valuations of ordinary shares were prepared using either a market approach based on precedent transactions in the ordinary and preferred shares or a market adjusted equity value method to estimate the Company's total equity value, and using an option-pricing backsolve method, or OPM, to allocate the equity value to each class of the Company's securities. In some cases, the Company determined that there were no significant events occurring between a prior valuation date and a subsequent grant. As such, in these cases the Company used the most recent share price valuation as an input to the determination of share-based compensation.

The OPM backsolve method derives an equity value such that the value indicated for ordinary shares is consistent with the investment price, and it provides an allocation of this equity value to each of the Company's securities. The OPM treats the various classes of ordinary shares and preferred shares as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, each class of ordinary shares has value only if the funds available for distribution to shareholders exceeded the value of the preferred share liquidation preferences at the time of the liquidity event. Key inputs into the OPM backsolve calculation included the valuation of equity, probability weighted expected time to liquidity and volatility. A reasonable discount for lack of marketability was applied to the total per share value to arrive at an estimate of the total fair value of an ordinary share on a non-marketable basis.

Leases

Effective January 1, 2019, the Company adopted ASU No. 2016-02, Leases (Topic 842), as amended, using the modified retrospective method and utilizing the effective date as its date of initial application, with prior periods presented in accordance with previous guidance under ASC 840, Leases, or ASC 840. At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on the unique facts and circumstances present in the arrangement. Leases with a term greater than one year are recognized on the balance sheet as right-of-use assets and current and non-current lease liabilities, as applicable. Entities may elect not to separate lease and non-lease components. The Company has elected to account for lease and non-lease components together as a single lease component for all underlying assets and to allocate all the contract consideration to the lease component only. All the Company's leases are classified as operating leases.

Lease liabilities and their corresponding right-of-use assets are initially recorded based on the present value of lease payments over the expected remaining lease term. Certain adjustments to the right-of-use asset may be required for items such as incentives received. The interest rate implicit in lease contracts has not been readily determinable. As a result, the Company utilizes its incremental borrowing rate to discount lease payments, which reflects the fixed rate at which the Company could borrow on a collateralized basis the amount of the

lease payments in the same currency, for a similar term, in a similar economic environment. As the Company does not have a rating agency-based credit rating, quotes were obtained from lenders to establish an estimated secured rate to borrow based on Company and market-based factors as of the respective lease measurement dates. The Company has elected not to recognize leases with an original term of one year or less on the balance sheet. The Company typically only includes the non-cancelable lease term in its assessment of a lease arrangement unless there is an option to extend the lease that is reasonably certain of exercise. Prospectively, the Company will adjust the right-of-use assets for straight-line rent expense or any incentives received and remeasure the lease liability at the net present value using the same incremental borrowing rate that was in effect as of the lease commencement or transition date.

Operating lease costs are recognized on a straight-line basis over the lease term, and they are categorized within research and development and general and administrative expenses in the statement of operations. The operating lease cash flows are categorized under net cash used in operating activities in the statement of cash flows.

Income taxes

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the financial statements or in its tax returns. Deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that deferred tax assets will be recovered in the future and to the extent management believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company uses a two-step approach for recognizing and measuring uncertain tax positions. The first step is to evaluate tax positions taken or expected to be taken in a tax return by assessing whether they are more likely than not sustainable, based solely on their technical merits, upon examination, and including resolution of any related appeals or litigation process. The second step is to measure the associated tax benefit for each position as the largest amount that the Company believes is more likely than not realizable. Differences between the amount of tax benefits taken or expected to be taken in the Company's income tax returns and the amount of tax benefits recognized in the financial statements represent the Company's unrecognized income tax benefits, which is either recorded as a liability or reduction of deferred tax assets.

The Company recognizes interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying statement of operations. As of December 31, 2019 and 2020, no accrued interest or penalties have been incurred.

Research and development tax credit

The Company is subject to corporate taxation in the United Kingdom , or the U.K. Due to the nature of the business, the Company has generated losses since inception. The benefit from research and development, or R&D, tax credits is recognized in the statements of operations and comprehensive loss as a reduction of research and development costs and represents the sum of the research and development tax credits recoverable in the U.K.

The U.K. research and development tax credit is fully refundable to the Company and is not dependent on current or future taxable income. As a result, the Company has recorded the entire benefit from the U.K.

research and development tax credit as a benefit which is included in net loss before income tax and accordingly, not reflected as part of the income tax provision. If, in the future, any U.K. research and development tax credits generated are needed to offset a corporate income tax liability in the U.K., that portion would be recorded as a benefit within the income tax provision and any refundable portion not dependent on taxable income would continue to be recorded as a reduction of research and development costs.

As a company that carries out extensive research and development activities, the Company benefits from the U.K. research and development tax credit regime under the scheme for small or medium-sized enterprises, or SME. Under the SME regime, the Company can surrender some of its trading losses that arise from qualifying research and development activities for a cash rebate of up to 33.35% of such qualifying research and development expenditure. Qualifying expenditures largely comprise employment costs for research staff, consumables, outsourced contract research organization costs and utilities costs incurred as part of research projects. Certain subcontracted qualifying research and development expenditures are eligible for a cash rebate of up to 21.67%. A large portion of costs relating to research and development, clinical trials and manufacturing activities are eligible for inclusion within these tax credit cash rebate claims.

The Company may not be able to continue to claim research and development tax credits under the SME regime in the future because it may no longer qualify as a small or medium-sized company.

Unsurrendered U.K. losses may be carried forward indefinitely to be offset against future taxable profits, subject to numerous utilization criteria and restrictions. The amount that can be offset each year is limited to £5.0 million plus an incremental 50% of U.K. taxable profits.

Comprehensive income (loss)

Comprehensive income (loss) includes net loss as well as other changes in shareholders' equity that result from transactions and economic events other than those with shareholders.

Net loss per share

The Company has reported losses since inception and has computed basic net loss per share attributable to ordinary shareholders by dividing net loss attributable to ordinary shareholders by the weighted-average number of ordinary shares outstanding for the period, without consideration for potentially dilutive securities. For purpose of this calculation, unvested Employee Shares and convertible preferred shares are considered potential dilutive ordinary shares. The Company computes diluted net loss per ordinary share after giving consideration to all potentially dilutive ordinary shares, including unvested Employee Shares and convertible preferred shares, outstanding during the period determined using the treasury-stock and if-converted methods, except where the effect of including such securities would be antidilutive. Because the Company has reported net losses since inception, these potential ordinary shares have been anti-dilutive and basic and diluted loss per share were the same for all periods presented.

Recent accounting pronouncements

Recently adopted accounting standards

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326), or ASU 2016-13: Measurement of Credit Losses on Financial Instruments, which changes the impairment model for most financial instruments. Current guidance requires the recognition of credit losses based on an incurred loss impairment methodology that reflects losses once the losses are probable. Under ASU 2016-13, the Company will be required to use a current expected credit loss model, or CECL, that will immediately recognize an

estimate of credit losses that are expected to occur over the life of the financial instruments that are in the scope of this update, including trade receivables. The CECL model uses a broader range of reasonable and supportable information in the development of credit loss estimates. This guidance becomes effective for interim periods in fiscal years beginning after December 15, 2019. The FASB has issued ASU 2019-10 which has resulted in the postponement of the effective date of the new guidance for eligible smaller reporting companies to the fiscal year beginning after December 15, 2022. The new guidance was adopted on January 1, 2020 and it did not have a material impact on the Company's unaudited condensed consolidated financial statements and related disclosures.

Recently issued accounting pronouncements not yet adopted

In November 2018, FASB issued ASU No. 2018-18, Collaborative Arrangements (Topic 808), or ASU 2018-18: Clarifying the Interaction between Topic 808 and Topic 606. The ASU amends ASC 808 to clarify ASC 606 should apply in entirety to certain transactions between collaborative arrangement participants. The amendments for ASU 2018-18 are effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. As the Company does not have any arrangements accounted for as collaborative arrangements it has determined that this guidance will not have a material impact on its financial statements.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes—Simplifying the Accounting for Income Taxes (Topic 740), or ASU 2019-12," which simplifies the accounting for income taxes. The new guidance removes certain exceptions to the general principles in ASC 740 such as recognizing deferred taxes for equity investments, the incremental approach to performing intra-period tax allocation and calculating income taxes in interim periods. The standard also simplifies accounting for income taxes under U.S. GAAP by clarifying and amending existing guidance, including the recognition of deferred taxes for goodwill, the allocation of taxes to members of a consolidated group and requiring that an entity reflect the effect of enacted changes in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date.

This guidance is effective for annual periods beginning after December 15, 2020, and interim periods thereafter; however, early adoption is permitted. The standard is not expected to have a material impact on the statement of operations.

3. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2019	**2020**
U.K. R&D tax credit	$4,159	$6,214
Deferred offering costs	—	1,007
Prepaid research and development	239	751
Deposits	265	—
VAT recoverable	327	1,125
Other current assets	477	851
	$5,467	$9,948

4. Property and equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2019	2020
Lab equipment	$1,258	$ 4,644
Leasehold improvements	148	6,960
Office equipment and computers	400	1,168
Fixtures and fittings	64	706
Assets under construction	291	1,275
	2,161	14,753
Less: Accumulated depreciation	(548)	(1,384)
	$1,613	$13,369

Depreciation expense was $0.3 million and $0.8 million for the years ended December 31, 2019 and 2020, respectively.

5. Accrued expenses and other liabilities

Accrued expenses and other liabilities consisted of the following (in thousands):

	December 31,	
	2019	2020
Compensation and benefits	$ 889	$1,494
External research and development expenses	477	2,201
Professional services	421	1,222
Property and equipment	—	303
Other liabilities	681	1,370
	$2,468	$6,590

6. Shareholders' equity

Ordinary shares

As of December 31, 2019 and 2020, the Company had the following number of ordinary shares with a par value £0.001 (equivalent to $0.001) issued and outstanding:

	December 31,	
	2019	2020
B Ordinary shares	2,000,000	2,000,000
D Ordinary shares	637,788	616,271
E Ordinary shares	321,783	316,629
F Ordinary shares	1,351,109	1,294,929
G Ordinary shares	801,434	768,822
H Ordinary shares	365,454	351,754
I Ordinary shares	204,785	191,433
J Ordinary shares	1,145,149	1,039,105
L Ordinary shares	3,205,229	4,781,213
M Ordinary shares	—	3,212,482
N Ordinary shares	—	3,956,566
Deferred Shares	991,865	30,521
Total ordinary and deferred shares	11,024,596	18,559,725

In May 2016, in connection with the execution of a license agreement with Cancer Research Technology Limited, or CRT (see Note 9), the Company issued 1,568,420 fully vested B ordinary shares and 268,420 C ordinary shares subject to the achievement of certain research and development milestones as vesting conditions in exchange for intellectual property rights. The fair value of the B and C ordinary shares were $0.14 per share. Total consideration of $0.3 million was recognized as intellectual property research and development expense in 2016 and corresponding additional paid-in capital. None of the vesting conditions of C ordinary shares were met and these shares were converted to deferred shares in September 2019.

In the same period the Company also issued 431,580 B and 131,580 C ordinary shares to its founders. In August 2017, the Company further issued 317,360 K ordinary shares to founders. The B ordinary shares issued to founders vested upon issuance and the Company recorded $0.1 million of expense upon the issuance of these shares. C ordinary shares and K ordinary shares are subject to performance-based vesting conditions associated with achievement of milestones. In September 2019, the vesting conditions for the C ordinary shares and K ordinary shares were not met and all C ordinary shares and K ordinary shares were converted into deferred shares.

Since inception, the Company issued various classes of ordinary shares as Employee Shares (See Note 7). Each holder of B ordinary shares is entitled to one vote per B ordinary share and, to receive dividends declared with Investor Majority consent and any such dividend as determined by the board of directors of the Company acting with investor director consent, provided that the preferred shares and the B ordinary shares shall, subject to the 2019 Articles, rank equally in all respects for the purpose of any dividend that is declared or paid. All other classes of ordinary shares do not have voting rights. All ordinary shares, including B shares, have a liquidation preference that is junior to Preferred Shares. As of December 31, 2020, the Company has not declared any dividends.

Deferred shares

Deferred shares are a unit of equity in the Company. Deferred shares can be repurchased at any time by the Company for £1.00 for all the deferred shares registered in the name of any holder. Deferred shares have effectively no voting or economic rights attached to them. As of December 31, 2019, and 2020, respectively, the Company had 991,865 and 30,521 shares that were converted to deferred shares but that had not been repurchased by the Company, respectively.

Convertible preferred shares

The Company issued series A convertible preferred shares, or series A, series A-1 convertible preferred shares, or series A-1, series B preferred shares, or series B, and series C preferred shares, or series C, (collectively, "Convertible Preferred Shares").

In May 2016, the Company issued 3,057,692 shares of Series A of £0.001 par value each at a purchase price of $1.45 or £1.00 per share.

In July 2017, the Company issued 3,200,000 shares of Series A-1 of £0.001 par value each at a purchase price of $1.31 or £1.00 per share.

In September 2017, the Company achieved its Series A second closing milestone and issued an additional 1,019,231 shares of Series A of £0.001 par value each at a purchase price of $1.32 or £1.00 per share.

In August 2018, the Company achieved its Series A-1 second closing milestone and issued an additional 1,800,000 shares Series A-1 of £0.001 par value each at a purchase price of $1.28 or £1.00 per share.

In October 2018, the board of directors of the Company approved to revise the milestone events and issuances of the Series A and Series A-1 upon the achievement of those milestones, and restructured outstanding Series A-1 as Series A.

In November 2018, the Company achieved its Series A third closing milestone and issued an additional 8,773,077 shares of Series A of £0.001 par value each at a purchase price of $1.28 or £1.00 per share.

In June 2019, the Company achieved its Series A fourth closing milestone and issued an additional 10,400,000 shares of Series A of £0.001 par value each at a purchase price of $1.27 or £1.00 per share.

In September 2019, the Company issued 34,794,714 shares of Series B preferred shares of £0.001 par value each at a purchase price of $2.31 or £1.916 per share. The conditions for the second closing of the Series B preferred shares include (i) acceptance of an Investigational New Drug, or IND, by the Food and Drug Administration, or FDA, before December 31, 2021, (ii) 80% of series B preferred shareholders opining there have been no material adverse change in the financial condition of the Company since the September 2019 issues of series B preferred shares that was not anticipated in the Company's annual budget, and (iii) the Company has cash runway of less than 6 months.

In December 2019, the Company achieved its Series B second closing milestone and issued and additional 17,397,356 shares of Series B of £0.001 par value each at a purchase price of $2.54 or £1.916 per share in November 2020.

In November 2020, the Company issued 24,412,603 shares of Series C of £0.001 par value each at a purchase price of $2.87 or £2.1589 per share.

As of December 31, 2019 and 2020, Convertible Preferred Shares consisted of the following (in thousands, except share data):

As of December 31, 2019	Shares		Liquidation preference	Carrying value
	Authorized	Outstanding		
Series A preferred shares	28,250,000	28,250,000	$ 36,725	$ 36,725
Series B preferred shares (note)	34,794,714	34,794,714	80,471	80,188
	63,044,714	63,044,714	$ 117,196	$ 116,913

As of December 31, 2020	Shares		Liquidation preference	Carrying value
	Authorized	Outstanding		
Series A preferred shares	28,250,000	28,250,000	$ 36,725	$ 36,725
Series B preferred shares (note)	52,192,070	52,192,070	124,615	124,312
Series C preferred shares	24,412,603	24,412,603	70,081	69,894
	104,854,673	104,854,673	$ 231,421	$ 230,931

Note: The liquidation preference amount of Series B preferred shares as of December 31, 2019 and 2020 illustrated in the above tables represents the liquidation amount under the initial public offering. The liquidation preference amount of Series B preferred shares will be different under other situations. The rights, preferences, and privileges of Convertible Preferred Shares were as follows as of December 31, 2020:

Conversion

At the option of the holder, Convertible Preferred Shares are convertible into an equivalent number of B ordinary shares at any time at conversion ratio of 1:1. All Convertible Preferred Shares will automatically convert into an equivalent number of B ordinary shares upon either (i) the notice of 60% of Convertible Preferred Shareholders that such conversion shall occur or (ii) immediately upon an initial public offering in which the per share net public offering is at least 1.15 times £2.1589 and the net aggregate proceeds of the offering are at least £75 million.

In the event the Company issues additional new securities at a price equal to or less than £1.916 per share, the Company shall, unless and to the extent that the holders of 80% Series B preferred shares and Series C preferred shares waived, issue to each holder of Series B preferred shares and Series C preferred shares a number of new Series B preferred shares and Series C preferred shares in accordance with the anti-dilution protections within the articles of association.

In the event the Company issues additional new securities at a price equal to or less than £2.1589 per share but higher than £1.916 per share, the Company shall, unless and to the extent that the holders of 80% Series C preferred shares waived, issue to each holder of Series C preferred shares a number of new Series C preferred shares in accordance with the anti-dilution protections within the articles of association.

Dividends

Subject to consent of 60% of holders of Preferred Share, dividends may be paid to the holders of Convertible Preferred Shares and B ordinary shares as determined by the board of directors of the Company. Through December 31, 2020, no dividends have been declared or paid.

Voting rights

The holders of the Convertible Preferred Shares are entitled to vote, together with the holders of B ordinary shares, at all general meetings of the Company and to receive and vote on proposed written resolutions of the Company. The Convertible Preferred Shares shall carry the right to one vote per Convertible Preferred Share held.

Liquidation

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, each holder of the then-outstanding Convertible Preferred Shares will be entitled to an amount equal to 100%, 106% and 100% of the subscription price of Series A preferred shares held, Series B preferred shares held and Series C preferred shares held, respectively. If there is share sale resulted from initial public offering, each holder of Convertible Preferred Shares will be entitled to an amount equal to the 100% (not 106%) of the subscription price of Convertible Preferred Shares held. After Convertible Preferred Shares, holders of deferred shares are paid a total of £1.00 for the entire class of deferred shares. Any remaining surplus after liquidation preference to the holders of the Convertible Preferred Shares and deferred shares would then be distributed to the holders of vested ordinary shares (as if they constituted one and the same class) pro rata to the number of vested ordinary shares held.

If the amount each Convertible Preferred Share holder is entitled to by participating in the liquidation event as an ordinary share holder on an as-converted basis (regardless of whether such holder converted its Convertible Preferred Shares to B ordinary shares) is greater than the amount to which the holder is entitled as a Convertible Preferred Share holder, the entitlement of the Convertible Preferred Share holder shall be calculated on an as-converted ordinary share basis and is ranked equal to the rights of ordinary shareholders.

If upon any such liquidation, dissolution, or winding-up, the assets available for distribution to shareholders are insufficient to pay the holders of the Convertible Preferred Shares the full amounts to which they are entitled, the holders of Convertible Preferred Shares shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the Convertible Preferred Shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

7. Share-based compensation

Under the Company’s shareholder and subscription agreements, the Company is authorized to grant equity awards to individuals including a director of and/or a person who is employed by or who directly or indirectly provides consultancy services to the Company, in the form of D, E, F, G, H, I, J, K, L, M and N ordinary shares (collectively referred to as “Employee Shares”) and share options. The share options are granted pursuant to the terms of the 2020 Share Option and Grant Plan, or the 2020 Plan.

As of December 31, 2020, the Company was authorized under the shareholder agreements to issue a total of 19,167,938 ordinary shares, including shares underlying options granted pursuant to the 2020 Plan. As of December 31, 2020, there were 3,449,824 shares available for issuance as incentives to the Company’s employees, nonemployees and directors, which includes shares underlying options that may be granted from time to time subsequent to December 31, 2020 under the terms of the 2020 Plan.

Employee Shares

The Company typically grants incentive shares which vest over a four-year service period with 25% of the award vesting on the first anniversary of the vesting commencement date, with the balance vesting periodically over the remaining three years.

Unvested Employee Shares are forfeited upon the termination of employment or service relationship in accordance with the Articles of the Company and 2020 Plan. The forfeited shares are converted into deferred shares, with a repurchase right for a nominal amount in favor of the Company. As of December 31, 2019, the

Company had not repurchased any shares. During the year ended December 31, 2020, the Company repurchased 1,509,394 deferred shares with the consideration of £0.01 to each holder for all of the deferred shares held by that holder.

The Company measures all share-based awards using the fair value on the date of grant and recognizes compensation expense for those awards over the requisite service period, which is generally the vesting period of the respective award. The Company has granted Employee Shares to employees and non-employees with service-based conditions and records expense for these awards using the straight-line method.

In addition, the Company granted 131,580 C ordinary shares and 317,360 K ordinary shares with performance- based vesting conditions to its founders in May 2016 and July 2017, respectively (Note 6).

A summary of the changes in the Company's unvested ordinary shares from December 31, 2018 through December 31, 2020 are as follows:

	Number of unvested ordinary shares	Weighted average grant date fair value
Unvested ordinary shares as of December 31, 2018	3,282,750	$ 0.28
Granted	5,379,259	0.88
Vested	(901,174)	0.40
Forfeited	(920,434)	0.40
Unvested ordinary shares as of December 31, 2019	6,840,401	$ 0.75
Granted	9,044,513	1.67
Vested	(2,953,364)	0.87
Forfeited	(548,040)	0.87
Unvested ordinary shares as of December 31, 2020	12,383,510	$ 1.46

As of December 31, 2019 and 2020, there was $4.7 million and $17.4 million of unrecognized compensation costs related to unvested Employee Shares outstanding, which is expected to be recognized over a weighted-average period of 2.5 years and 3.1 years, respectively.

Share Options

The following table summarizes the Company's share options activity for the year ended December 31, 2020:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
	2020	2020	2020	2020
Outstanding as of December 31, 2019	—	$ —	—	$ —
Granted	952,550	$ 1.71		
Exercised	—	—		
Forfeited	—	—		
Outstanding as of December 31, 2020	952,550	$ 1.71	4.84	$ 313
Exercisable as of December 31, 2020	94,375	$ 1.57	4.79	$ 44
Unvested as of December 31, 2020	858,175	$ 1.72	4.84	$ 269

The weighted average grant-date fair value of share options granted during the year ended December 31, 2020 was $0.84 per share. There were no share options granted during the year ended December 31, 2019.

As of December 31, 2020, there was $0.5 million of unrecognized compensation cost related to share options outstanding, which is expected to be recognized over a weighted-average period of 3.6 years.

Share Option Valuation

The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of the share options granted to employees during the year ended December 31, 2020 were as follows:

	Year Ended December 31, 2020
Expected term (in years)	3.21 Years
Expected volatility	73.81%
Expected dividend yield	0.00%
Risk free interest rate	0.20%
Fair value of underlying ordinary shares	$ 1.60

Share-based Compensation Expense

Share-based compensation expense recorded as research and development and general and administrative expenses is as follows (in thousands):

	Years Ended December 31,	
	2019	2020
Research and development	$ 332	$ 1,331
General and administrative	387	1,661
	$ 719	**$ 2,992**

8. Leases

As of December 31, 2020, the Company had six operating leases of real property for office and laboratory use, for which the Company recorded right-of-use assets and leases liabilities as of the ASU 2016-02 effective date or lease commencement date, if later. In addition, two of the Company's leases met the short-term exception, having lease terms of 12 month or less, and are therefore not recorded on the Company's balance sheet. The Company's leases do not include purchase options. Where the Company's leases contain options to extend the lease term, the extended lease term is only included in the measurement of the lease when it is reasonably certain to remain in the lease beyond the non-cancelable term. The Company's leases contain variable lease costs, which pertain to common area maintenance and other operating charges, that are expensed as incurred.

Operating leases

On July 8, 2016, the Company entered in a Master Service Agreement with Royal Free London NHS Foundation Trust, which included access rights to the lab space at the Royal Free Hospital, Pond Street, London, with a 5-year term. The Master Service Agreement was due to expire on August 31, 2020. On June 1, 2020, the Master Service Agreement was renewed and will expire on August 31, 2023.

On February 1, 2019, the Company entered into six agreements with Stevenage Bioscience Catalyst to lease office suites at Gunnels Wood Road, Stevenage Hertfordshire, which were due to expire on January 31, 2021. In February 2021, the Company renewed six agreements which will expire on July 31, 2022.

On October 1, 2019, the Company entered into a short-term six-month lease with Stevenage Biosciences Catalyst at Gunnels Wood Road, Stevenage Hertfordshire which expired on March 31, 2020.

On January 10, 2020, the Company entered into a non-cancellable operating lease in relation to office premises at Gunnels Wood Road, Stevenage Hertfordshire for a period of 2 years. The future minimum lease payments committed to in relation to this lease less any landlord incentives to be recognized up to the break total £0.2 million or $0.2 million.

On February 21, 2020, the Company entered into a non-cancellable operating lease in relation to office premises at Hammersmith Road, London for a period of 10 years, with a break clause at 5 years. The future minimum lease payments committed to in relation to this lease less any landlord incentives to be recognized up to the break total £5.4 million or $7.0 million.

On February 28, 2020, the Company entered into a 4-year manufacturing services collaboration agreement for lab space access at Gunnels Wood Road, Stevenage Hertfordshire, with cancellation penalties of up to £2.2 million or $2.7 million should the Company terminate without due cause.

In December 2020, the Company entered into a new lease of a warehouse in west London, United Kingdom for a period of 10 years, with a break clause at 5 years. The Company will construct a flexible GMP modular facility to scale up its manufacturing footprint. The future minimum lease payments to be committed to in relation to this lease up to the break date are £3.8 million or $4.9 million.

Summary of lease costs recognized under ASU 2016-02

The following table contains a summary of the lease costs recognized under ASU 2016-02 and other information pertaining to the Company's operating leases for the years ended December 31, 2019 and 2020:

	Years ended December 31,	
	2019	**2020**
Lease cost		
Operating lease cost	$ 564	$ 2,927
Variable lease cost	31	2,891
Short-term lease cost	88	49
	$683	**$5,867**
Other information:		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows used in operating leases	$ 574	$ 1,844
Right of use assets obtained in exchange for new operating lease liabilities	$ 457	$ 15,846
Weighted average remaining lease term (in years)	0.9 years	4.0 years
Weighted average discount rate	5.01%	4.85%

Pursuant to the terms of the Company's non-cancelable lease agreements in effect at December 31, 2020, the following table summarizes the Company's maturities of operating lease liabilities as of December 31, 2019 and 2020:

	December 31, 2020
Operating lease liabilities payment	
2021	4,413
2022	4,908
2023	4,363
2024	3,081
Thereafter	825
Total lease payments	$ 17,590
Less: imputed interest	(1,607)
Present value of lease liability	$ 15,983

9. License agreements

CRT license

In May 2016, the Company entered into a License Agreement, or the License Agreement, with CRT pursuant to which the Company obtained access rights to intellectual property and Know-How from the Whole TRACERx Study. Under the license agreement, the Company is granted an exclusive, sublicensable license to the TRACERx patents and bioinformatic data for use in: (i) the fields of neoantigen cell therapies and adoptive cell transfer neoantigen diagnostics for use in research and the potential development of products for commercialization; and (ii) the neoantigen therapeutic vaccine field for research and development but not in the development of products for commercial sale. The Company also obtained a non-exclusive license to the TRACERx bioinformatic pipeline, patient sequencing and medical data, know-how, and materials.

CRT additionally granted the Company certain rights to new patent applications filed by the Founding Institutions in respect of inventions resulting from the TRACERx study through February 2023, including automatic exclusive licenses to patent rights relating to non-severable improvements of technology covered by the original TRACERx patents and non-exclusive rights to severable improvements. CRT granted the Company the right of first negotiation to license certain patents rights generated by the Company's founders outside of the TRACERx study which relate to the licensed technology.

In July 2017, the Company obtained a non-exclusive license to the LOHHLA patent under the License Agreement. In October 2018, the Company obtained an exclusive license to the LOHHLA patent under an addendum to the License Agreement.

In May 2018, the Company entered into an amendment to the License Agreement that created an additional sample period through July 2020 and specified additional patient tumor and blood materials to be subject to the License Agreement related to the immunology side study. The License Agreement was subsequently amended in July 2020 and November 2020.

Upon execution of the License Agreement the Company granted CRT 1,568,420 B ordinary shares and 268,420 C ordinary shares. The Company recorded $0.3 million of IP research and development expense in 2016 (see Note 6). The Company is obligated to pay CRT milestone success payments up to an aggregate of £6.5 million

for therapeutic products, and milestone success payments up to an aggregate £0.8 million for non-therapeutic products, as well as sub-single digit to low-single digit percentage royalty on net sales of products that utilize the licensed intellectual property, subject to certain customary reductions. The royalty obligations continue on a product-by-product and country-by-country basis until the later of: (i) the date there ceases to be a valid patent claim covering such product in the country in which it is sold; or (ii) with respect to contribution royalty products, ten years from the first commercial sale of the product, and with respect to a patent royalty product, five years from the first commercial sale of the product. On a product-by-product basis, the Company may also elect to provide other cash consideration at fair market value and forgo the milestone or royalty payment.

Unless terminated earlier, the term of the agreement continues until the later of the expiration of the royalty term in each country and such time as no further milestone payments are due, and upon such termination, the licenses granted shall become fully-paid, royalty-free, irrevocable, and perpetual. The Company has the right to terminate the license agreement for convenience in its entirety upon 90 days' notice. Each party may terminate the agreement if the other party is in material breach subject to a 90 day remedy period. The Company will have the right to acquire ownership of the TRACERx patents upon either: (i) the occurrence of a royalty product for use in the therapeutic field; (ii) CRT shareholders cease to hold any ordinary shares in the Company; (iii) the Company undergoes an initial public offering; or (iv) the Company is acquired by a third party for more than £25.0 million.

No expenses were recorded for the years ended December 31, 2019 and 2020 related to the CRT License Agreement.

10. Income taxes

The Company is domiciled in United Kingdom and is primarily subject to taxation in that country. During the years ended December 31, 2019 and 2020, the Company recorded no income tax benefits for the net operating losses incurred in each period due to its uncertainty of realizing a benefit from those items. During the year ended December 31, 2020, the Company recorded a tax provision related to income tax obligations of its operating company in the U. S., which generates a profit for tax purposes.

Loss before provision for income taxes consisted of the following:

	December 31,	
	2019	2020
United Kingdom	$ (13,990)	$ (33,204)
Foreign	—	8
	$ (13,990)	$ (33,196)

The income tax provision for the years ended December 31, 2019 and 2020 is comprised of the following:

	December 31,	
	2019	2020
Current expense:		
United Kingdom	$ —	$ —
Foreign	—	7
Total current expense:	—	7
Deferred expense (benefit):		
United Kingdom	—	—
Foreign	—	(4)
Total deferred expense (benefit):	—	(4)
Total income tax expense:	$ —	$ 3

The provision for income taxes for the years ended December 31, 2019 and 2020 was computed at the United Kingdom statutory income tax rate.

A reconciliation of income tax expense computed at the statutory UK income tax rate to income taxes as reflected in the consolidated financial statements is as follows:

	Year Ended December 31,	
	2019	2020
Income taxes at UK statutory rate	19.00%	19.00%
R&D expenditure	(12.37)%	(6.69)%
Change in valuation allowance	(6.85)%	(13.12)%
Other	0.22%	0.80%
	0.00%	(0.01)%

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2019 and 2020 consist of the following:

	December 31,	
	2019	2020
Deferred tax assets		
Net operating loss carryforwards	$ 2,475	$ 7,065
Depreciation	(243)	(983)
Non-cash share-based compensation	161	769
Other	(2)	241
Total deferred tax assets	$ 2,391	$ 7,092
Valuation allowance	(2,391)	(7,088)
Net deferred tax assets	$ —	$ 4

As of December 31, 2019 and 2020, the Company had UK net operating loss carryforwards of approximately $13.0 million and $37.1 million that can be carried forward indefinitely, respectively.

Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2019 and 2020 related primarily to the increases in net operating loss carryforwards and research and development tax credit carryforwards were as follows:

	December 31,	
	2019	2020
Valuation allowance at beginning of year	$1,342	$2,391
Increases recorded to income tax provision	996	4,628
Exchange difference	53	69
Valuation allowance at end of year	$2,391	$7,088

Future realization of the tax benefits of existing temporary differences and net operating loss carryforwards ultimately depends on the existence of sufficient taxable income within the carryforward period. As of December 31, 2019 and 2020, the Company performed an evaluation to determine whether a valuation allowance was needed. The Company considered all available evidence, both positive and negative, which included the results of operations for the current and preceding years. The Company determined that it was not possible to reasonably quantify future taxable income and determined that it is more likely than not the net deferred tax assets will not be realized. Accordingly, the Company maintained a full valuation allowance as of December 31, 2019 and 2020 on the United Kingdom deferred tax assets.

The Company applies the authoritative guidance on accounting for and disclosure of uncertainty in tax positions, which requires the Company to determine whether a tax position of the Company is more likely than not to be sustained upon examination, including resolution of any related appeals of litigation processes, based on the technical merits of the position. For tax positions meeting the more likely than not threshold, the tax amount recognized in the financial statements is reduced by the largest benefit that has a greater than fifty percent likelihood of being realized upon the ultimate settlement with the relevant taxing authority. There were no material uncertain tax positions as of December 31, 2019 and 2020.

The Company will recognize interest and penalties related to uncertain tax positions in income tax expense when in a taxable income position. As of December 31, 2019 and 2020, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in the Company's statement of operations.

The Company files income tax returns in the U.K. Generally, the tax years through 2020 remain open to examination. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the U.K. tax authorities, if such tax attributes are utilized in a future period.

11. Net loss per share

Basic and diluted net loss per share attributable to ordinary shareholders was calculated as follows (in thousands, except share and per share amounts):

	Year ended December 31,	
	2019	2020
Numerator		
Net loss	$ (13,990)	$ (33,199)
Net loss attributable to ordinary shareholders—basic and diluted	$ (13,990)	$ (33,199)
Denominator		
Weighted-average number of ordinary shares used in net loss per share—basic and diluted	2,542,520	4,219,823
Net loss per share—basic and diluted	$ (5.50)	$ (7.87)

The Company's potentially dilutive securities, which include warrants to purchase ordinary shares, unvested Employee Shares and Convertible Preferred Shares, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of ordinary shares outstanding used to calculate both basic and diluted net loss per share attributable to ordinary shareholders is the same. The Company excluded the following potential ordinary shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share attributable to ordinary shareholders for the year ended December 31, 2019 and 2020 because including them would have had an anti-dilutive effect:

	Year ended December 31,	
	2019	2020
Series A preferred shares	28,250,000	28,250,000
Series B preferred shares	34,794,714	52,192,070
Series C preferred shares	—	24,412,603
Unvested ordinary shares	6,840,401	12,383,510
Share options	—	952,550
Total	69,885,115	118,190,733

Unaudited pro forma net loss per share attributable to ordinary shareholders

The unaudited pro forma basic and diluted net loss per share to ordinary shareholders and unaudited pro forma weighted-average number of basic and diluted ordinary shares for the years ended December 31, 2019 and 2020, give effect to the one-for-0.2526 reverse share split of all ordinary shares except for N ordinary shares, and the one-for-0.1792 reverse share split of N ordinary shares, to be effected immediately prior to and conditional on the completion of this offering, but do not give effect to the conversion of all of the Company's outstanding convertible preferred shares into ordinary shares. The following represents pro forma net loss per share information for the Company for the years ended December 31, 2019 and 2020 (in thousands, except share and per share amounts):

	Year ended December 31,	
	2019	2020
Numerator		
Net loss	$ (13,990)	$ (33,199)
Net loss attributable to ordinary shareholders—basic and diluted	$ (13,990)	$ (33,199)
Denominator		
Pro forma weighted-average number of ordinary shares used in net loss per share—basic and diluted (unaudited)	642,169	1,066,208
Net loss per share—basic and diluted (unaudited)	$ (21.79)	$ (31.14)

Unaudited supplemental pro forma net loss per share attributable to ordinary shareholders

The unaudited supplemental pro forma basic and diluted net loss per share to ordinary shareholders and pro forma weighted-average number of basic and diluted ordinary shares for the year ended December 31, 2020 give effect the reverse share split as if the conversion of all outstanding convertible preferred shares had occurred at the later of January 1, 2020 or the issuance dates of the preferred shares, to be effected immediately prior to and conditional on the completion of this offering.

A reconciliation of the pro forma weighted-average number of ordinary shares used in computing supplemental pro forma basic and diluted net loss per share applicable to ordinary shareholders is as follows (in thousands, except share and per share amounts):

	Year ended December 31, 2020
Numerator	
Net loss	$ (33,199)
Net loss attributable to ordinary shareholders—basic and diluted	$ (33,199)
Denominator	
Pro forma weighted-average number of ordinary shares used in net loss per share—basic and diluted (unaudited)	1,066,208
Pro forma adjustment to reflect assumed conversion of preferred share into ordinary share (unaudited)	17,134,221
Supplemental pro forma weighted average number of ordinary shares used in computing supplemental pro forma net loss per share attributable to ordinary shareholders—basic and diluted (unaudited)	18,200,429
Supplemental pro forma net loss per share—basic and diluted (unaudited)	$ (1.82)

12. Commitments and contingencies

Commitment with suppliers

The Company entered into several agreements with vendors that contains non-cancellable software arrangement and the minimum purchase commitment of laboratory materials and consumables for the purpose of research and development activities as well as clinical development. The unused purchase commitment as of December 31, 2019 and 2020 was $1.0 million and $4.3 million, respectively.

Legal proceedings

From time to time, the Company may be a party to litigation or subject to claims incident to the ordinary course of business. The Company was not a party to any litigation and did not have contingency reserves established for any liabilities as of December 31, 2019 and 2020.

Indemnification agreements

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations.

In accordance with the 2020 Articles, the Company has indemnification obligations to its officers and directors for certain events or occurrences, subject to certain limits, while they are serving at the Company's request in such capacity. There have been no claims to date, and the Company has director and officer insurance that may enable it to recover a portion of any amounts paid for future potential claims.

13. Related party transactions

The Company analyzed its transactions with related parties for the years ended December 31, 2019 and 2020, and determined it had the following material transactions that have not been described elsewhere in the financial statements.

During the years ended December 31, 2019, $0.1 million was charged to the company by Syncona Investment Management Limited for management fees and other costs incurred on behalf of the Company. No such transaction incurred during the year ended December 31, 2020. Syncona Investment Management is a subsidiary of Syncona Limited.

14. Employee benefit plans

In the United Kingdom, the Company makes contributions to private defined contribution pension schemes on behalf of its employees. The contributions to this scheme are expensed to the statement of operations as they fall due. The Company paid $0.5 million and $1.0 million in contributions in the year ended December 31, 2019 and 2020, respectively.

15. Subsequent Events

The Company has completed an evaluation of all subsequent events through March 1, 2021, the date on which the financial statements were issued, to ensure that these financial statements include appropriate disclosure

of events both recognized in these financial statements as of December 31, 2020, and events which occurred subsequently but were not recognized in these financial statements. There have been no subsequent events at the date of issue of this balance sheet except as disclosed below:

In February 2021, the Company renewed six agreements with Stevenage Bioscience Catalyst to lease office and lab suites at Gunnels Wood Road, Stevenage Hertfordshire with a break after 6 months. All six leases will expire on July 31, 2022.

On February 2, 2021, the Company granted 504,733 share options to employees with an exercise price of $2.89 per share pursuant to the terms of the 2020 Plan.

See Note 11 for the pro forma basic and diluted net loss per share to ordinary shareholders and unaudited pro forma weighted-average number of basic and diluted ordinary shares for the years ended December 31, 2019 and 2020, giving effect to the one-for-0.2526 reverse share split of all ordinary shares except for N ordinary shares, and the one-for-0.1792 reverse share split of N ordinary shares that will be effected immediately prior to and conditional on the completion of the offering.

9,750,000

American Depositary Shares

Representing 9,750,000 Ordinary Shares

J.P. Morgan

BofA Securities

Piper Sandler

Chardan

Oppenheimer & Co.

Kempen & Co